



Final Regulation Agency Background Document

Agency name	Department of Environmental Quality
Virginia Administrative Code (VAC) citation	9VAC15-40
Regulation title	Small Renewable Energy Projects (Wind) Permit by Rule
Action title	Establishment of one or more permits by rule necessary for the construction and operation of small renewable energy projects mandated by the Virginia 2009 Acts of Assembly Chapters 808 and 854 (HB 2175/SB 1347). Specifically, this regulatory action focuses on wind energy projects
Date this document prepared	October 20, 2010

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 14 (2010) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

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Brief summary

Please provide a brief summary (no more than 2 short paragraphs) of the proposed new regulation, proposed amendments to the existing regulation, or the regulation proposed to be repealed. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation. Also, please include a brief description of changes to the regulation from publication of the proposed regulation to the final regulation.

The purpose of this regulatory action is to implement 2009 state legislation requiring the Department of Environmental Quality (DEQ) to develop one or more permits by rule for wind-energy projects with rated capacity not exceeding 100 megawatts. The “permit by rule” establishes requirements for potential environmental impacts analyses, mitigation plans, facility site planning, public participation, permit fees, inter-agency consultations, compliance and enforcement. This final regulation constitutes DEQ’s permit by rule for wind energy projects. Changes from the proposed include clarification of the public notice/meeting requirements and incorporation of specific requirements for offshore/coastal wind energy projects based on the recommendations of the offshore/coastal regulatory advisory panel.

Statement of final agency action

Please provide a statement of the final action taken by the agency including (1) the date the action was taken, (2) the name of the agency or board taking the action, and (3) the title of the regulation.

The Director of the Department of Environmental Quality approved the Small Renewable Energy Projects (Wind) Permit by Rule on October ____, 2010.

Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter numbers, if applicable, and (2) promulgating entity, i.e., agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.

This regulatory action is undertaken by the Department of Environmental Quality pursuant to Code of Virginia Sections 10.1-1197.5 through 10.1-1197.11, 2009 Acts of Assembly Chapters 808 and 854. The legislation mandates that DEQ develop one or more permits by rule for small renewable energy projects.

Purpose

Please explain the need for the new or amended regulation. Describe the rationale or justification of the proposed regulatory action. Detail the specific reasons it is essential to protect the health, safety or welfare of citizens. Discuss the goals of the proposal and the problems the proposal is intended to solve.

This regulatory action is necessary in order for DEQ to carry out the requirements of 2009 Acts of Assembly Chapters 808 and 854 (hereafter “2009 statute”). The regulatory action is essential to protect

the health, safety, and welfare of Virginia citizens because it will establish necessary requirements, other than those established in applicable environmental permits, to protect Virginia's natural resources that may be affected by the construction and operation of small renewable energy projects.

Substance

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. A more detailed discussion is required under the "All changes made in this regulatory action" section.

This regulatory action addresses the need for a reasonable degree of certainty and timeliness in the natural-resources protections required for small wind energy projects by setting forth, as fully as practicable, these required protections "up front" in this new permit by rule for wind energy projects. The regulatory action describes how the Department will address analysis of potential environmental impacts, mitigation plans, facility site planning, public participation, permit fees, inter-agency consultations, compliance, and enforcement.

Issues

Please identify the issues associated with the proposed regulatory action, including:

- 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions;*
 - 2) the primary advantages and disadvantages to the agency or the Commonwealth; and*
 - 3) other pertinent matters of interest to the regulated community, government officials, and the public.*
- If there are no disadvantages to the public or the Commonwealth, please indicate.*

The primary advantages of the permit by rule for wind energy projects include the following:

For any individual or company wishing to develop a small wind energy project, the proposed regulation provides certain, consistent and, DEQ believes, reasonable standards for obtaining a permit to construct and operate. Furthermore, the permit by rule mandates that DEQ process permit applications in no more than 90 days – a timeframe that should help developers in their planning. Provision of certain and timely regulatory requirements should assist developers in obtaining project financing.

For individuals or companies wishing to develop very small projects (over 500 kW and up to 5 MW), the permit by rule calls for only notification and minimal requirements for these projects. This should make it less difficult to develop community-scale projects. The permit by rule places no requirements on projects of 500 kW and less, which should make it less difficult to develop residential-scale projects.

Another advantage – to the regulated community, government officials, and the public – is that this permit by rule creates a clear and, DEQ believes, an efficient path for development of wind energy in Virginia. Avoiding additional electrical generation from fossil fuels is a benefit for the environment, because wind energy projects do not emit air pollutants. Developing and expanding renewable industries in Virginia is also a boost for our economy, and, it is hoped, a significant step in creating energy independence from foreign oil interests.

Of interest is the agreement of the regulatory advisory panel (RAP) – a group comprised of experts from environmental advocacy groups, wind developers, local government, academia, and state agencies – on all but a small number of issues presented during the development of this permit by rule. Across the country, wind energy projects are typically lightning rods for significant controversy. The fact that the RAP

was able to agree on the vast majority of issues was a significant milestone in creating a more constructive and productive process for approving proposed wind energy projects in Virginia.

The permit by rule for Wind Energy poses no known disadvantages to the public or the Commonwealth.

Changes made since the proposed stage

Please describe all changes made to the text of the proposed regulation since the publication of the proposed stage. For the Registrar’s office, please put an asterisk next to any substantive changes.

The changes included below arise from two main sources: (1) the consensus recommendations produced by meetings and deliberations of the Offshore/Coastal Wind Regulatory Advisory Panel (Offshore RAP), whose work could not begin until after the March 2010 issuance of a leasing study by the Virginia Marine Resources Commission and therefore occurred after the work of the original Wind RAP, and (2) staff recommendations and revisions made to the document in response to public comments filed during two public comment periods on the proposed regulation – one conducted after Executive Review of the original proposal, and one held after the work of the Offshore RAP was completed. In spring 2010, DEQ published a notice asking for persons to contact DEQ if they were interested in serving on the Offshore RAP. Based on responses to this notice, the following panel was formed:

Government	Environmental Organizations
DCR – Tom Smith; Danette Poole and Rene Hypes, alternates	TNC – Nikki Rovner; Gwynn Crichton and David Phemister, alternates
DGIF – Ray Fernald; Rick Reynolds, alternate	PEC – Dan Holmes; Todd Benson, alternate
DHR – Roger Kirchen; Julie Langan, alternate	Chesapeake Climate Action Network – Chelsea Harnish
VDACS – Stephen Versen; Larry Nichols, alternate	Virginia Aquarium & Marine Science Center – Mark Swingle
VMRC – Tony Watkinson; Elizabeth Murphy, alternate	Academia
DMME – Ken Jurman	Jonathan Miles, JMU; Remy Luerssen, alternate
DEQ – James Golden and Rick Weeks; Laura McKay, alternate	Bryan Watts, Center for Conservation Biology, W&M/VCU
VIMS – Lyle Varnell; Roger Mann, alternate	Local Government
U. S. Navy – James Casey; Patricia Kerr, alternate	VACO – Larry Land
Industry/Private Sector	City of Norfolk – Larry Lombardi
John Daniel, Troutman Sanders/Invenergy; Don Giecek, alternate	
Bob Bisha, Dominion; Guy Chapman, alternate	
Ron Jefferson, Appalachian Power/AEP; Larry Jackson, alternate	
Bob Matthias, Virginia Offshore Wind Coalition	
Marina Phillips, Kaufman & Canoles	
Thomas Numbers, ERM	
Chandler Smith, PBS&J	

As the Offshore RAP officially began its deliberations, the issue of overlapping permit authorities between DEQ and VMRC became “front and center.” DEQ and VMRC staff began conferring about this issue in summer 2009 and continued to discuss the matter until summer 2010.

The issue of overlapping VMRC and DEQ authority did not have to be resolved during the deliberations of the original Wind RAP, because the two directors determined (consistent with legal advice from the OAG)

that DEQ's RAP could not effectively consider a PBR addressing projects in state waters or on state-owned submerged lands until VMRC completed the leasing study required of it by the 2009 General Assembly. This study was due – and was submitted – to the General Assembly in March 2010. Shortly thereafter, DEQ began the process of empanelling the Offshore RAP.

For wind projects located on land, permitting authority (or its legal equivalent) lies, under current law, with the State Corporation Commission (SCC) and, when the Wind PBR becomes final and effective, will then reside with DEQ. By contrast, for projects located on state-owned submerged lands, VMRC already has specific permitting authority over a number of the natural-resource issues addressed in DEQ's 2009 permit-by-rule statute. DEQ understands that no project may move forward on state-owned submerged lands without a VMRC permit. So, when DEQ's Wind PBR becomes final and effective, there will be two state agencies with permitting authority for projects on state-owned submerged lands.

Based on staff discussions and legal analysis provided by the OAG, the director of DEQ determined that a PBR would not be necessary for projects located in state waters or on state-owned submerged lands for PBR issues that will always, as a matter of law, be addressed by VMRC under VMRC's permitting laws. The Commissioner of VMRC concurred with this determination. Accordingly, the RAP's recommendations and this proposed regulation reflect the agreed-upon resolution of the overlap of DEQ's and VMRC's permitting authorities.

The Offshore RAP began meeting in early June 2010 and completed formulating its recommendations in mid-August 2010. The RAP leader had asked representatives of DGIF and DHR to develop "straw man" PBR provisions for the RAP to consider, since those agencies are the state's lead agencies on wildlife and historic resources issues, respectively. DGIF and DHR did submit "straw man" ideas. After detailed discussion during six day-long meetings, the RAP agreed by consensus to all the concepts suggested by these agencies. The RAP recommended specific regulatory language to implement these "straw man" agency suggestions. The RAP also considered and recommended additional provisions consistent with the 2009 statute's requirements as they apply to projects in Virginia's coastal areas and state waters.

A notable achievement of the Offshore RAP was its recommendation of the Coastal Avian Protection Zone (CAPZ) map, and attendant documentation. Experts made presentations to the RAP concerning the critical – and sometimes hemispheric – importance of Virginia's coastal regions to avian species, especially to huge numbers of birds that migrate, winter or stage near our coastlines. This regulation sets forth a carefully defined system whereby developers who propose to construct wind projects in CAPZ areas will take these critical avian resources into account. The CAPZ system was supported by all Offshore RAP members for projects with a rated capacity over 5 MW, and by all but one RAP member for projects greater than 500 kW up to 5 MW.

At the end of the original Wind RAP's deliberations, there were only three issues on which consensus was not reached: (1) whether Species of Greatest Conservation Need (SGCN) should be included as a regulatory trigger for mandated mitigation plans; (2) what requirements, if any, should be placed on very small projects (sometimes called the "de minimis" issue); and (3) what avian field studies should be required in Virginia's coastal areas. One of the chief goals of the Offshore RAP was to address and resolve the third non-consensus issue left by the original Wind RAP. The majority of Offshore RAP members had also served on the original Wind RAP. A couple of individuals had moved out of Virginia or were otherwise unavailable to serve on the Offshore RAP, but their constituencies were represented in the new group. In addition, several new constituencies were added for purposes of the Offshore RAP, because these representatives have special expertise on resource issues in coastal areas and state waters. Consequently, the Offshore RAP was well suited to consider the unresolved issue of coastal avian field studies, and its members were also capable of addressing the other two non-consensus issues from the original Wind RAP – SGCN and "de minimis."

Before launching into a discussion of how issues were addressed in this final regulation on which the RAP did not reach consensus, DEQ would like to discuss briefly the basis for its reliance on the RAP's recommendations when the RAP did reach consensus.

Few would dispute that wind energy projects involve many complex and controversial issues. DEQ's RAPs included well-qualified individuals from stakeholder groups on all sides of these issues – state agencies, wind developers, environmental advocacy groups, local government, academia and -- on the Offshore RAP -- the military. That this broad array of RAP members was able to reach consensus on the vast majority of PBR issues was a tribute to RAP members' long days of dedicated, professional debate about these issues. DEQ has chosen to accept the consensus-based recommendations of the RAPs and, with some further modification in response to public comment, to include those recommendations in this final regulation.

Some public commenters, however, appear to question DEQ's decision to rely on consensus-based resolution of issues by the RAPs, particularly with relation to some wildlife issues. By way of general response, DEQ would note the following information about the RAP's deliberations.

Rationale for accepting consensus recommendations of the RAP: The original Wind RAP consisted of numerous experts from different stakeholder perspectives, and additional non-RAP experts contributed to the RAP's deliberations, particularly on wildlife issues. RAP members spent a great deal of time and effort in trying to resolve PBR issues appropriately, both in subcommittee meetings (i.e., Living Resources, Landscape, and General/Legal Subcommittees) and in plenary RAP discussions. Details of these discussions are reflected as fully as possible in copious meeting notes of the numerous subcommittee meetings and the 15 all-day original Wind RAP meetings. All meeting notes are available on the Regulatory Town Hall. For some issues, the Offshore RAP continued discussion and resolution of issues first discussed by the original Wind RAP, as well as discussing new issues related to projects in coastal areas and state waters. Extensive meeting notes for Offshore RAP meetings are also available on the Regulatory Town Hall.

It is not possible to recount all the details of these RAP deliberations in this section of TH03 or in the later section setting forth DEQ responses to particular public comments. DEQ believes, however, after careful review of the RAP's efforts DEQ could be considered remiss if DEQ did not accept and rely on the RAP's consensus-based recommendations. By means of open and detailed public discussions, RAP members sought, as the 2009 statute requires, an appropriate balance between encouraging renewable energy development and protecting natural resources. After lengthy and complex deliberations, the RAP did indeed resolve almost all issues by consensus. Comments from persons outside the RAP – who may themselves be experts – are welcome, are respected, and have been taken into account by DEQ in drafting this final regulation. In a number of provisions, staff has made changes to the regulation based on comments submitted by members of the public. These changes are reflected below. In other cases, however, DEQ did not revise provisions as requested by members of the public, instead choosing to rely on consensus-based recommendations of the RAP. The foregoing comments are provided to help explain to members of the public why it is appropriate for DEQ to rely on consensus recommendations of the RAP in these instances.

Discussion regarding changes to this regulation on **non-consensus** RAP issues:

The following summary addresses changes that were made to this regulation since its proposal concerning issues on which the original Wind RAP did not reach consensus.

Avian field studies – NOW HAVE CONSENSUS: As discussed in TH02, DEQ viewed the avian field studies issue, not as an issue on which the original Wind RAP did not achieve consensus, but rather as an issue on which the RAP had not YET achieved consensus. The issue was essentially deferred until it could be considered and resolved by the Offshore RAP. Indeed, at the end of the Offshore RAP's deliberations, RAP members concurred that they had resolved all coastal avian field-study issues by consensus. The Offshore RAP's recommendations regarding coastal avian field studies – and all other coastal and state-waters issues – appear in this final regulation.

SGCN as mandatory mitigation trigger – STILL NO CONSENSUS: This issue is discussed at length in TH02. To recap briefly, the original Wind RAP discussed all wildlife issues in detail, both in the Living Resources Subcommittee (chair: Judy Dunscomb of TNC; members: Ray Fernald of DGIF, Tom Smith of DCR, and Bob Bisha of Dominion) and in plenary RAP meetings. In the course of these numerous meetings, the RAP recommended by consensus a broad definition of “wildlife” (i.e., as “wild animals,” with additional proviso regarding T&E insect species). By consensus, the RAP also recommended broad measures for surveying and analyzing the presence of wildlife and related resources (cf. 9VAC15-40-40 A and C.1 – some 9 pages of text in the proposed regulatory format), and it is anticipated that information resulting from these analyses can and will be taken into account in the formulation of wildlife mitigation plans. The RAP took a narrower focus, however, regarding which results of these prescribed wildlife analyses would become automatic “triggers” for mandatory mitigation. By the time of the final meeting of the original Wind RAP in early January 2010, only two proposals were put forth concerning which results of the prescribed wildlife analyses would require DEQ to “find that significant adverse impacts to wildlife are likely” and therefore require a mitigation plan to address these potential impacts (cf. 9VAC15-40-50 A). The original RAP’s two proposals for mandatory wildlife mitigation “triggers” are as follows:

Proposal 1:

Two triggers – (1) bats detected, or hibernaculum exists, within the project’s disturbance zone;
(2) state-listed T&E wild life found within the disturbance zone.

Rationale: To recap briefly the information explained in TH02, the unique and serious potential impact of utility-scale wind projects on bats has been well documented and is accepted in the United States and other countries. RAP members acknowledged and agreed that a mitigation plan for bats is almost a certainty for utility-scale wind projects in Virginia. Studies have shown that operational curtailment can be an effective operational mitigation tool for avoiding or minimizing adverse impacts on bats.

Likewise, all RAP members agreed that it is appropriate for developers of utility-scale wind projects to take appropriate mitigation actions to avoid impacts on T&E species. According to advice from the OAG, the 2009 statute does not abrogate the authority of other agencies, pursuant to other statutes, to take action against persons who “take” T&E species. All RAP members, however, believed it important for DEQ to require an applicant to avoid impacts on T&E species (as set forth in this regulation) so that an incidental “take” is less likely to occur.

Proposal 2:

Three triggers – (1) bats and (2) T&E (same as for Proposal 1)
(3) SGCN Tiers 1 & 2 species -- vertebrates only

Rationale:

In addition to the bat and T&E triggers, some members of the original Wind RAP believed that some Species of Greatest Conservation Need (SGCN) should also constitute triggers for mandatory mitigation plans, as described in TH02. DGIF described to the RAP the four tiers of SGCN that are identified in the Virginia State Wildlife Plan, which was developed pursuant to a Congressional mandate that all states develop a Comprehensive Wildlife Conservation Strategy. The SGCN list was described as incorporating input from leading experts, based at least in part on peer-reviewed studies. The list apparently was neither conceived nor developed as a regulation, and was not subject to the same public-participation requirements as a regulation would be.

Proponents of including SGCN as an automatic regulatory trigger for mitigation (including DGIF) were willing to limit the proposal to only Tiers 1 & 2 (“extremely high” or “high” risk of extinction or extirpation, respectively). In the discussion, it was noted that a number of species in these top two Tiers are also state-listed T&E, so these species are already addressed by the T&E trigger.

All but one of the SGCN proponents were willing to limit the trigger to vertebrates, apparently because it is often difficult to detect invertebrate species, and qualified experts in the field are rare. An applicant’s ability to hire a qualified scientist to survey, analyze, and address these invertebrate species could therefore be severely limited.

Studies were not presented to the RAP showing the adverse impact of wind projects on SGCN species. It does not appear that wind projects pose any special or unique threat to SGCN species that any other type of development in the species' habitat would not also pose. Proponents of including SGCN did not present evidence of any unique or special threat. It was not shown that requirements for other types of development include mitigation for SGCN. In fact, SGCN were considered and were not elevated to regulatory status in other DEQ programs, as discussed in TH02.

Discussions of wildlife mitigation triggers were long and detailed, throughout the meetings and subcommittee meetings of the original Wind RAP. (See meeting notes on the Regulatory Town Hall) It seemed clear to all RAP members that likely adverse impacts on common species like crows and raccoons should not constitute triggers for mitigation. At the other end of the wildlife spectrum, it was clear to all RAP members that likely adverse impacts to bats and T&E species should constitute regulatory triggers for mitigation. As stated, RAP members' views differed as to elevating some species on the SGCN list (i.e., Tiers 1 & 2 vertebrates) to regulatory status. The RAP's final deliberations on this issue did not contemplate inclusion of any other wildlife as mandatory triggers for mitigation.

Note: Some members of the public submitted comments during the public comment periods strongly disagreeing with the scope of the mandatory triggers proposed in this regulation. (Although these commenters stated that they disagreed with the regulation's definition of wildlife, it appears that they were actually disagreeing with which wildlife species would constitute triggers for mandatory mitigation in the "Determination of likely significant adverse impacts" section, 9VAC15-40-50. As stated previously, the regulation's definition of "wildlife" in 9VAC15-40-10 is broad, as is the scope of wildlife surveys and analyses in 9VAC15-40-40 concerning "Analysis of the beneficial and adverse impacts on natural resources." DEQ can find no evidence that commenters disagreed with either 9VAC15-40-10 or -50. Rather, commenters stated disagreement with limitations that appear to relate to bats, T&E, and SGCN – which are the subjects of 9VAC15-40-50 A on determination of, aka "triggers" for, a finding that mitigation is required.) Some public commenters stated or implied that a much larger number of species should be addressed in required wildlife mitigation plans. RAP members (including DGIF), however, did not propose including more species than bats, T&E, and Tiers 1 & 2 SGCN vertebrates as triggers for mitigation in the original RAP's final disposition of the issue. Consistent with the RAP's actions and recommendations, DEQ likewise did not consider species other than bats, T&E, and Tiers 1 & 2 SGCN vertebrates as possible regulatory triggers for mitigation. All public comments on this subject were considered and taken into account; however, for the reasons explained earlier, DEQ relied on the RAP's conclusion that only bats, T&E, and Tiers 1 & 2 SGCN vertebrates should be considered as triggers for required mitigation.

DEQ's decision regarding wildlife triggers: DEQ accepted the RAP's consensus-based recommendations that bats and T&E species constitute triggers for mandatory mitigation plans. DEQ considered all of the arguments and rationales for also including Tiers 1 & 2 SGCN vertebrates, a subject discussed by the RAP but on which the RAP did not reach consensus. The SGCN issue is a complex and difficult one. It is easy for reasonable people to agree that the statute did not mean for DEQ to address impacts to common species like crows when it gave DEQ authority to require mitigation for likely significant adverse impacts to wildlife. It is much more difficult to discern whether statutory intent includes requiring mitigation for species like SGCN. At the end of the day, the task was to find the appropriate balance point between DEQ's two statutory goals: to promote renewable energy and to protect natural resources.

Some RAP members asserted that the 2009 statute directs DEQ to protect "wildlife," and that this directive sets renewable energy projects apart from other statutes that do not require this protection. The 2009 statute actually directs DEQ to develop a PBR, if the department determines that a PBR is necessary for the construction and operation of a small renewable energy project, "including such conditions and standards necessary to protect the Commonwealth's natural resources." § 10.1-1197.6 A of the Code of Virginia. A later statutory provision sets forth as a condition for issuance of a PBR the submission of a mitigation plan, "if the Department determines that the information collected pursuant to [the Analysis section] indicates that significant adverse impacts to wildlife or historic resources are likely." § 10.1-1197.6 B 8 of the Code of Virginia. Arguably, this statutory provision does not directly require the

Department to protect wildlife, but rather to protect “natural resources.” Some would say that all of DEQ’s statutes require the Department to protect natural resources – that natural-resource protection is probably the main reason that DEQ’s statutes exist, and protection of natural resources is a core function of DEQ in all of its programs. (For example, Section 10.1-1183 of the Code of Virginia includes the following language: “It shall be the policy of the Department of Environmental Quality to protect the environment...The purposes of the Department are...[t]o assist in the effective implementation of the Constitution of Virginia by carrying out state policies aimed at conserving the Commonwealth’s natural resources...”) SGCN do not constitute a regulatory basis for mitigation in DEQ’s other programs. And DEQ’s other programs do not include legislative intent to promote the type of development addressed by those programs, as the 2009 statute provides for DEQ’s new renewable energy program. If SGCN are not elevated to regulatory status in DEQ’s other programs, then it can be argued that SGCN should not receive this treatment in a program that is actually supposed to promote the type of development in question – i.e., renewable energy projects. These arguments tend to militate against inclusion of SGCN as a mitigation trigger. Here, however, as in RAP discussions, these arguments can become somewhat circular and attenuated. Comparison to how SGCN are treated in DEQ’s other programs, therefore, is only one factor DEQ considered in evaluating the SGCN trigger issue.

As a general guiding principle, DEQ has determined that the PBR should not make it more difficult to develop renewable energy projects than it is to develop other projects unless there is a good reason. That “good reason” can be a special or unique threat of adverse impact presented by the renewable energy project to natural resources. This principle is evident in the PBR’s requiring mitigation for impacts to bats, because wind projects pose a unique and special threat to bats that is well documented and accepted. Likewise, the PBR requires mitigation for significant adverse impacts to historic resources, because utility-scale wind turbines, which are generally over 400 feet tall, can present an obvious impact on the viewsheds of nearby historic resources, which historic-resource experts may analyze and classify as significantly adverse. This principle is part of DEQ’s interpretation of the 2009 statute’s directive to balance promoting renewable energy with protecting natural resources. The principle was specifically explained to the Offshore and Solar RAPs that were meeting this summer and memorialized in meeting notes.

When this principle is applied to SGCN, no special or unique impact of wind projects on SGCN species appears obvious, nor was such asserted or described by RAP members or members of the public. It is possible that any kind of development in the species’ habitat may negatively affect SGCN but, to the best of DEQ’s knowledge, other types of development are not constrained by state regulatory mandates for mitigation to protect SGCN. Without a “good reason,” such as a special or unique impact, DEQ finds it difficult to justify requiring wind projects to mitigate for impacts to SGCN when it does not do so for other types of projects.

For all of these reasons, DEQ did not include Tiers 1 & 2 SGCN vertebrates as a trigger for mandatory mitigation plans in 9VAC15-40-50 when the Wind PBR was proposed in early 2010.

The Offshore RAP had essentially completed formulating its recommendations at its sixth meeting, held in August 2010. DEQ convened an additional meeting of the Offshore RAP in order to receive the RAP’s input on changes staff had put forth to the draft Wind PBR based on public comment. At its seventh meeting on September 28, 2010, the RAP leader asked members of the Offshore RAP (most of whom had also been members of the original Wind RAP) if any had changed their positions on the SGCN issue. Discussion of the SGCN issue ensued, and RAP members affirmed that their previous positions had not changed, and that consensus still did not exist on whether Tiers 1 & 2 SGCN vertebrates should be a trigger for mandatory mitigation plans.

DEQ fully considered and evaluated comments from the public during both public comment periods (including public comment from one organization that was represented on the RAP) that favored including these SGCN species as a mitigation trigger, as well as comments that suggested an even broader scope of mandatory wildlife protection/mitigation. None of these comments showed that wind projects have any special or unique impact on SGCN or other wildlife species that other types of development might not

also present. For this and other reasons -- articulated in TH02, in this section of TH03, and in the "Public Comments" section of TH03 -- the Department has not included Tiers 1 & 2 SGCN vertebrates as a trigger for mandatory mitigation plans in 9VAC15-40-50.

Other additions to 9VAC15-40-50: Although this proposed regulation does not include SGCN as a mitigation trigger, it does include known sea turtle nesting beaches and CAPZ, in addition to bats and T&E. Inclusion of both sea turtle nesting beaches and CAPZ was recommended by consensus of the Offshore RAP. The RAP's rationale is summarized in the "Public Comments" section of TH03 and fully described in meeting notes of the Offshore RAP's meetings. During RAP discussions, experts explained that the lighting required by FAA and others for wind turbines may confuse sea turtle hatchlings when they seek the sea, unless that lighting is accomplished according to well-established protocols, which are set forth in this regulation. This impact could be described as a special threat posed by wind turbines. With regard to wind projects in CAPZ, avian experts on the RAP, as well as studies performed by these experts and others, suggest that tall structures in CAPZ pose a special threat to the huge numbers of birds that inhabit or pass through these regions.

"De minimis" requirements – PROGRESS BUT STILL NO CONSENSUS: The third and final issue on which the original Wind RAP did not reach consensus had to do with requirements for very small wind projects – an issue often referred to as the "de minimis" issue. To recap briefly discussion of this issue in TH02, the original Wind RAP reached consensus that projects with a rated capacity of 500 kW or less (often referred to as residential-scale projects) should not have to meet any PBR requirements. The original Wind RAP also reached consensus that projects over 5 MW (often referred to as utility-scale projects) should complete all of the PBR requirements set forth in the regulation. The original Wind RAP did not reach consensus on what should be required of projects over 500 kW and less than or equal to 5 MW (often referred to as community-scale projects). The Wind PBR proposed in early 2010 required that community-scale projects perform two of the 14 requirements for a full PBR; i.e., notify DEQ and provide local-government certification that the project complies with land-use requirements (9VAC15-40-130). (Note: There were transcription errors in the proposed regulation's delineation of the rated capacity of projects in the residential, community, and utility scale categories, respectively. These transcription errors have been corrected in this final regulation to reflect staff's understanding of what the original RAP intended, with concurrence of the Offshore RAP at its September 2010 meeting.)

During the initial public comment period, DEQ received one comment suggesting that the desktop surveys required in the full PBR also be required of community-scale projects. Another commenter suggested that there should be more requirements for community-scale projects but made no specific suggestions. In order to provide the public an opportunity to comment on possible new requirements for community-scale projects, DEQ staff added to the revised draft PBR a requirement that community-scale projects submit the suggested desktop analyses; however, the staff draft also provided that the applicant must take reasonable steps to mitigate if obvious T&E or historic-resources were revealed in the desktop analyses. Staff believed that DEQ should have a method of addressing serious resource threats if and when they became apparent as a result of the desktop analyses.

As stated previously, the Offshore RAP met on September 28 so that RAP members could provide feedback to staff on this suggested "de minimis" provision, as well as on other changes staff had made to the draft regulation in response to public comments. RAP members raised no objections to the other changes made in response to public comments, and RAP members reached a significant degree of conceptual agreement concerning the desktop "de minimis" requirement. When staff subsequently circulated draft language to RAP members for further comment, however, it became apparent that unresolved issues existed. Each effort designed to assuage one party's concern regarding an issue created concern in other quarters about a different issue. DEQ staff and RAP members considered seven approaches (or variations on approaches) in an attempt to reach RAP consensus on this issue. In the end, no one approach was acceptable to the entire RAP. Although progress was made in RAP discussions, no consensus was reached.

Accordingly, this final regulation maintains the previous requirement that community-scale projects (greater than 500 kW and equal to or less than 5 MW) the applicant notify DEQ and provide local-government certification. It does not contain a requirement that desktop analyses be submitted. It does, however, contain a new “de minimis” requirement for wind projects in CAPZ, as explained later in this section of TH03.

DEQ Guidance: During the initial public comment period, several commenters asked about specific protocols for various PBR requirements – especially in the Analysis section – set forth in the proposed regulation. In response, DEQ explained that protocols had been developed and recommended by the RAP, and they would appear in agency Guidance. DEQ noted that copies of the draft Guidance are available on request and that Guidance will be completed after the regulation becomes final. During the second comment period, some commenters took exception to staff’s response, asserting that such protocols should be set forth in the regulation.

The RAP itself recommended, by consensus, not only what the protocols should be, but also which protocols should appear in the regulation and which should appear in Guidance. DEQ intends to honor these consensus-based recommendations. Unless significant contrary information about these protocols surfaces when Guidance is drafted, DEQ foresees that the RAP-recommended protocols will constitute agency Guidance. For provisions on which the RAP did not recommend protocols, protocols or other appropriate procedures will be developed in the Guidance-drafting process.

For the benefit of the public, DEQ will briefly summarize criteria utilized by the RAP in recommending which provisions should appear in the regulation as opposed to appearing in Guidance. Details of the RAP’s discussion about regulation vs. Guidance may be found in various RAP meeting notes. Included in the RAP’s recommendations was consideration of the following guidelines:

First, regulations contain what the applicant must do; Guidance explains how. Because even a detailed regulation like a permit by rule cannot contain every explanatory detail, “how to” information is generally placed in Guidance. This is true not only for the Wind PBR but for DEQ’s other permit programs as well.

Second, regulations contain what an applicant “shall” do; Guidance contains what he “should” do. Regulations contain what DEQ can and should enforce. If a provision is only a recommendation, then it should appear in Guidance. For instance, the RAP determined that an applicant should rig the ropes for mist netting in a certain fashion; however, neither the RAP nor DEQ believes that DEQ should disapprove an application or enforce against a permittee if he achieves reliable results by rigging the ropes in a different fashion. Thus, the RAP recommended that this provision appear in Guidance rather than in the regulation.

Third, protocols and other information that are likely to change over a relatively short period of time should appear in Guidance. Changing a regulation generally takes about two years. Guidance can be changed at any time to adapt to changing technology and other advancements, without going through the Administrative Process Act processes.

Fourth, when methods of accomplishing regulatory requirements are well-established, those methods may be appropriate for the regulation itself; however, when several options or methods may be acceptable, or when there is not universal acceptance of certain methods, then these methods or options may be better discussed in Guidance. For instance, the RAP acknowledged that the methods of avoiding and minimizing impacts of development on sea turtle nesting beaches are well established and widely accepted. Accordingly, the RAP recommended that these methods be set forth in the regulation. By contrast, RAP discussions revealed that methods of mitigating for avian impacts are relatively uncertain. When the RAP considered mitigation provisions for wind projects in CAPZ, RAP members acknowledged that only limited options appear to be available, such as locating turbines appropriately within a site, and adjusting timing and methods of construction to avoid or minimize impacts. Once turbines are in place, however, RAP avian experts indicated there are no conclusive studies at the present time that indicate operational measures (like curtailment) can significantly reduce avian impacts. DGIF and the rest of the

RAP therefore recommended that offsets (such as contributions to research or habitat preservation) be considered as appropriate mitigation for avian impacts in CAPZ. With this degree of uncertainty, the RAP recommended that avian mitigation provisions for the CAPZ be presented in Guidance, rather than in the regulation. (Note: The foregoing explanations of the RAP's deliberations about avian mitigation in CAPZ are also relevant to the RAP's deliberations about avian impacts in inland regions. These discussions are noted in minutes of the RAP's meetings and subcommittee meetings. It is hoped that commenters who questioned the RAP's consensus-based resolution of avian issues will find these explanations helpful.)

DEQ respects the public's desire to know as much as possible about wind PBR requirements. DEQ and the RAPs worked hard to state requirements "up front" in the regulation to the greatest extent practicable. It is neither practicable nor appropriate, however, for every detail to be set forth in the regulation. Guidance plays an important role for both DEQ staff and the public in explaining how regulatory provisions are intended to be carried out, in the Wind PBR and in other permitting programs. For the reasons stated, DEQ intends to follow the RAP's consensus-based recommendations to place protocols and similar provisions in Guidance, and not in the regulation itself.

Drafting Guidance is the function of DEQ staff. There is no requirement for public participation of any kind. For the Wind PBR, however, DEQ plans to utilize the input already provided by the RAPs. DEQ also plans to open the Guidance-drafting process to continued input from the RAPs, as well as from other members of the public. DEQ will post information about opportunities for public input into the Guidance-drafting process as those opportunities are scheduled. DEQ obviously cannot complete drafting Guidance until after the provisions of the Wind PBR become definite – that is, after the regulation becomes final and effective.

DEQ offers both these general explanations of changes made (or not made) to this final regulation, and these general responses to public comment, in an effort to show the public how the RAPs and DEQ staff worked diligently to implement the statutory requirements of the "Small Renewable Energy Projects legislation in as balanced, accurate, and responsible manner as possible. DEQ acknowledges with gratitude the input provided by RAP members and other members of the public.

Section number	Requirement at proposed stage	What has changed	Rationale for change
10	Definitions.	Definition of "Coastal Avian Protection Zone" added.	Consensus recommendation of Offshore/Coastal RAP - The recommendation of the Offshore/Coastal RAP includes substituting a new map for the former reference to Coastal GEMS databases. The new map is called the "Coastal Avian Protection Zones" ("CAPZ") map, and it will be housed on Coastal GEMS as an entirely new data layer. An applicant's utilization of the CAPZ map will constitute both the "desktop" analysis and at least part of the "field study" analysis.
10	Definitions.	Definition of "Coastal Zone" deleted.	Consensus recommendation of Offshore/Coastal RAP – Replaced with new definition of "Coastal Avian Protection Zone."
10	Definitions.	Definition of "Ecological core" revised.	Corrected subsection reference to accommodate addition of new subsection.
10	Definitions.	Definition of "Important Bird Areas" added.	Consensus recommendation of Offshore/Coastal RAP - The Offshore/Coastal RAP also suggested that language further clarifying conditions under which an area would qualify as an "Important Bird Area" be placed in DEQ Guidance.
10	Definitions.	Definition of "Invasive plant species" revised.	Corrected subsection reference to accommodate addition of new subsection.
10	Definitions.	Definition of "Migratory corridors" added.	Consensus recommendation of Offshore/Coastal RAP.
10	Definitions.	Definition of "Migratory staging areas" added.	Consensus recommendation of Offshore/Coastal RAP.
10	Definitions.	Definition of "Nearshore waters" added.	Consensus recommendation of Offshore/Coastal RAP - This definition was developed by the Offshore/Coastal RAP specifically for use in this regulation. Although DEQ and the Offshore/Coastal Wind RAP had used "offshore" to refer to state waters (within the three-mile limit), it soon became clear that most people use the term "offshore" to refer to federal waters. The RAP therefore determined that the term "nearshore" would be a less confusing term to describe state waters.

Section number	Requirement at proposed stage	What has changed	Rationale for change
10	Definitions.	Definition of "Other avian mitigation factors" added.	Consensus recommendation of Offshore/Coastal RAP. Refers to four specific types of avian areas within the Coastal Avian Protection Zone (CAPZ).
10.	Definitions.	Definition of "SGCN" revised.	Corrected subsection reference to accommodate addition of new subsection.
10	Definitions.	Definition of "Small wind energy project" – editorial revision.	Editorial revision.
10	Definitions.	Definition of "State owned submerged lands" added.	Consensus recommendation of Offshore/Coastal RAP. Definition is taken from existing VMRC regulations/guidance.
10.	Definitions.	Definition of "VLR" revised.	Corrected subsection reference to accommodate addition of new subsection.
10	Definitions.	Definition of "VMRC" added.	Consensus recommendation of Offshore/Coastal RAP.
10	Definitions.	Definition of "Wintering areas" added.	Consensus recommendation of Offshore/Coastal RAP.
20	Authority and applicability.	Grammatical changes – "The department has determined that a permit by rule is required for small wind energy projects with a rated capacity equal to or greater than 5 megawatts and this regulation contains the permit by rule provisions for these projects in Part II (9VAC15-40-30 et seq.) of this chapter. The department has also determined that a permit by rule is not required for small wind energy projects with a rated capacity less than <u>of</u> 5 megawatts <u>or less</u> , and this regulation contains notification <u>and other</u> provisions for these projects in Part III (9VAC15-40-130) of this chapter.	Editorial correction and consensus recommendation of the Offshore/Coastal RAP.
30 A	Application for permit by rule for wind energy projects.	Requirements clarified – "A. The owner or operator of a small wind energy project with a rated capacity equal to or greater than 5	Editorial correction.
30 A 1	Application for permit by rule for wind energy projects.	Requirements revised for clarification – "1. In accordance with §10.1-1197.6 B 1 of the Code of Virginia, <u>and as early in the project development process as practicable</u> , furnishes to the department a notice of intent...	Changes made in response to public comment. Some commenters, especially the military, wish to know as far in advance as possible when a wind project is contemplated.

Section number	Requirement at proposed stage	What has changed	Rationale for change
30 A 8	Application for permit by rule for wind energy projects.	Section reference corrected.	Editorial correction.
* 30 A 13	Application for permit by rule for wind energy projects.	Requirements clarified – “13. Prior to authorization...The public meeting shall be held in the locality or, if the project is located in more than one locality, in a place proximate to the location of the proposed project; <u>however, for projects located in nearshore waters or on state owned submerged lands, the meeting shall be held in the locality that is the closest distance from the approximate center of the project’s disturbance zone.</u> ”	Consensus recommendation of Offshore/Coastal RAP.
* 40 A 1	Analysis of the beneficial and adverse impacts on natural resources. Desktop surveys and maps.	“1. Desktop surveys and maps. The applicant shall obtain a wildlife report and map generated from DGIF’s Virginia Fish and Wildlife Information Service or Wildlife Environmental Review Map Service web-based application (9VAC15-40-120 B 3) <u>(9VAC15-40-120 C 3) or from a data and mapping system including the most recent data available from DGIF’s subscriber-based Wildlife Environmental Review Map Service</u> of the following: (i) <u>known</u> wildlife species and habitats known to occur <u>habitat features</u> on the site or <u>and</u> within two (2) miles of the boundary of the site; (ii) <u>known</u> bat hibernacula known to occur on the site or within five (5) miles of the boundary of the site; (iii) <u>known</u> maternity and bachelor bat colonies known to occur on the site or within 4-12 <u>twelve (12)</u> miles of the boundary of the site; <u>and (iv) known or potential sea turtle nesting beaches located within one (1) mile of the disturbance zone.</u> ”	Grammatical/Editorial changes made by staff for clarification in response to public comment. That is, some commenters did not interpret the originally-proposed language concerning resources “known to occur on the site <u>or</u> within [a specified distance] of the boundary of the site” as that language was intended. Staff changed word order and use of “or” to “and” to clarify the intended meaning. Technical clarifications concerning DGIF’s databases were made based on public comment from DGIF. Addition of provisions to protect sea turtle nesting areas based on consensus recommendation of the Offshore/Coastal RAP.
* 40 A 5	Desktop surveys and maps of coastal avian migration corridors.	Requirement deleted.	Changes based on consensus recommendations of the Offshore/Coastal RAP. The use of the CAPZ map already includes identification of coastal avian migration corridors, so the requirement in this section would be redundant.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 40 A 5	New requirement.	Requirement for map and field studies for avian resources was added to clarify requirements for the Coastal Avian Protection Zones (CAPZs). – “5. Map and field studies for avian resources in Coastal Avian Protection Zones (CAPZ). a. The applicant shall consult the “Coastal Avian Protection Zones” map generated on the department’s Coastal GEMS geospatial data system (9VAC15-40-120 C 1) and determine whether the proposed wind energy project site will be located in part or in whole within one or more CAPZ.”	Changes based on consensus recommendations of the Offshore/Coastal RAP for the use of the CAPZ map.
* 40 A 5 b	New requirement.	Requirement added – “b. When a proposed wind energy project site will be located in part or in whole within one or more Coastal Avian Protection Zones, then the applicant shall perform avian field studies, or shall rely on existing scientific analysis as reflected on the CAPZ map, for each zone where the project is located, as follows:	Changes based on consensus recommendations of the Offshore/Coastal RAP for the use of the CAPZ map.
* 40 A 5 b (1)	New requirement.	Requirement added: “(1) Zone 1: Nearshore waters extending 1—4.83 km (0.62 – 3 mi) from Virginia’s ocean-facing shoreline, excluding the mouth of the Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory Piping Plovers, Wilson’s Plovers, Peregrine Falcons, Gull-billed Terns and Roseate Terns), hemispherically important migratory staging areas and wintering areas for seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.”	Changes based on consensus recommendations of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 40 A 5 b (2)	New requirement.	Requirement added: "(2) Zone 2: Nearshore waters that extend from Virginia's ocean-facing shoreline out to 1 km (0.62 mi), excluding the mouth of the Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory and breeding Piping Plovers, Wilson's Plovers, Peregrine Falcons and Gill-billed Terns, and migratory Roseate Terns), and hemispherically important migratory corridor, migratory staging areas and wintering areas for shorebirds, seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map."	Changes based on Consensus recommendations of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.
* 40 A 5 b (3)	New requirement.	Requirement added: "(3) Zone 3: Barrier island/seaside lagoon system, including a 100 m (328 ft.) offshore buffer. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding and migratory Piping Plovers, Wilson's Plovers, Gull-billed Terns, Peregrine Falcons and Bald Eagles, and migratory Roseate Terns), the designation as an Important Bird Area, and hemispherically important migratory staging areas and wintering areas for shorebirds, seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 40 A 5 b (4)	New requirement.	Requirement added: "(4) Zone 4: Southern end of the Delmarva Peninsula (mainland only), including a 10 km (6.21 mi) strip along the western (bayside) fringe of peninsula that extends from Wise Point to (and including) Savage Neck. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory Peregrine Falcons and breeding and migratory Bald Eagles), the designation as an Important Bird Area, and hemispherically important migratory staging areas for passerines and other landbirds. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map."	Changes based on consensus recommendations of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.
* 40 A 5 b (5)	New requirement.	Requirement added: "(5) Zone 5: Delmarva Peninsula, excluding zones 3 and 4. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles) and regionally to hemispherically important fall migratory staging areas for landbirds. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map."	Changes based on consensus recommendations of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.
* 40 A 5 b (6)	New requirement.	Requirement added: "(6) Zone 6: Southern end and mouth of the Chesapeake Bay, including the waters off of the western shore of the Delmarva Peninsula that extend from Wise Point north of the mouth of Craddock Creek. In this zone, the relevant avian species and other avian mitigation factors are: migratory staging areas and wintering areas for seabirds and waterfowl that may be of hemispheric importance. The applicant shall conduct aerial transect surveys for waterfowls and seabirds during the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 40 A 5 b (7)	New requirement.	Requirement added: "(7) Zone 7: Lower portions of the James, York and Rappahannock Rivers and small tributaries along the south side of the lower Potomac River. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles), regionally important fall migratory staging areas and wintering areas for waterfowl, and spring migratory staging areas of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl during the spring migration season to determine the distribution, density and relative abundance of these species within this zone during the spring season. The applicant shall either perform avian field studies regarding the actual or likely occurrences of breeding Bald Eagles and waterfowl during the fall and winter seasons, or rely on existing scientific analysis as reflected on the CAPZ map."	Changes based on consensus recommendations of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.
* 40 A 5 b (8)	New Requirement.	Requirement added: "(8) Zone 8: Western portions of the Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: migratory staging areas and wintering areas for seabirds and waterfowl of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl and seabirds in the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 40 A 5 b (9)	New requirement.	Requirement added: "(9) Zone 9: Virginia's northeast sector of the Chesapeake Bay, including all nearshore waters, marshes and islands within Tangier and Pocomoke Sounds and all islands and marshes located along the western fringe of the Delmarva Peninsula from Craddock Creek north to the Virginia/Maryland border. This zone is recognized as a migratory staging area and wintering area for seabirds and waterfowl of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl and seabirds during the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season. In this zone, additional relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles and Peregrine Falcons) and the designation as an Important Bird Area. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these additional resources, or rely on existing scientific analysis reflected on the CAPZ map."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.
* 40 A 5 b (10)	New requirement.	Requirement added: "(10) Zone 10: Upper reaches of the James, Rappahannock and Potomac Rivers. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles and continentally important Bald Eagle concentration areas), the designation as Important Bird Areas, and locally to continentally important waterfowl wintering areas. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 40 A 5 b (11)	New Requirement.	Requirement added: "(11) Zone 11: Lower reaches of the Mattaponi and Pamunkey tributaries. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles) and the designation as an Important Bird Area. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.
* 40 A 5 b (12)	New Requirement.	Requirement added: "(12) Zone 12: Outer fringes of the lower, middle and northern peninsulas. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles). The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.
* 40 A 5 b (13)	New Requirement.	Requirement added: "(13) Zone 13: Interior portions of the lower, middle and northern peninsulas. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles, for which little information currently exists in this zone). The applicant shall perform ground surveys for breeding Bald Eagles to determine distribution and abundance of Bald Eagle nests within the disturbance zone and within .25 mile of the perimeter of the disturbance zone."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.
* 40 A 5 b (14)	New Requirement.	Requirement added: "(14) Zone 14: Back Bay and surrounding private lands. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles), the designation as Important Bird Area, and locally to continentally important migratory staging areas and wintering areas for waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map."	Changes based on consensus recommendation of the Offshore/Coastal RAP for the use of the CAPZ map. Requirement needed to clarify a specific zone on the Coastal Avian Protection Zones map.

Section number	Requirement at proposed stage	What has changed	Rationale for change
40 A 7	Analysis of the beneficial and adverse impacts on natural resources. Mist-netting or harp-trapping surveys.	Editorial revision to clarify requirement – “7. Mist-netting or harp-trapping surveys. If the applicant identifies potential for T&E bat species <u>to occur</u> within the disturbance zone, the applicant shall conduct a season-appropriate mist-netting survey or harp-trapping survey or both.”	Changes based on public comments and staff recommendations. Subsequently reviewed and accepted by Offshore/Coastal RAP.
40 A 8	Analysis of the beneficial and adverse impacts on natural resources. Wildlife report.	Revision to clarify requirement – “8. Wildlife report. The applicant shall provide to the department a report summarizing the relevant findings of the desktop and field surveys conducted pursuant to subdivisions 1 through 7 of this subsection, <u>along with all data and supporting documents</u> . The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on wildlife resources identified in subdivisions 1 through 7 of this subsection.”	Changes based on public comments and staff recommendations. Subsequently reviewed and accepted by Offshore/Coastal RAP.
40 B	Analysis of historic resources.	Subsection reference corrected.	Corrected subsection reference to accommodate addition of new subsection.
* 40 B 2	Analysis of historic resources. Architectural survey.	Clarification of requirement: “2. Architectural survey. The applicant shall conduct a field survey of all architectural resources, including cultural landscapes, 50 years of age or older within the disturbance zone and within 1.5 miles of the disturbance zone boundary and evaluate the eligibility of any identified resource for listing in the VLR; <u>however, for wind energy projects located in nearshore waters, this field study shall include all architectural resources 50 years of age or older within five (5) miles of the disturbance zone boundary, but shall not extend more than 1.5 miles inland from the mean low water mark.</u> ”	Consensus recommendation of Offshore/Coastal RAP – This provision is designed to reflect DHR’s comment that the viewshed impacts to historic resources are expected to be greater for projects located in the water than they are for most projects located on land. The limitation of 1.5 miles inland is provided to maintain consistency of requirements between onshore and nearshore.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 40 B 3	Analysis of historic resources. Archaeological survey.	Clarification of requirement: "3. Archaeological survey. The applicant shall conduct an archaeological field survey of the disturbance zone and evaluate the eligibility of any identified archaeological site for listing in the VLR; <u>however, the requirements of this paragraph shall not apply to any portion of the disturbance zone located on state-owned submerged lands that are subject to VMRC permitting pursuant to Title 28.2 of the Code of Virginia.</u> "	Consensus recommendation of Offshore/Coastal RAP – This is an example of the RAP’s acknowledgment of and accommodation for the overlap between DEQ’s PBR authority and VMRC’s permitting authority in nearshore waters.
40 B 4	Analysis of historic resources. Historic resources report.	Clarification of requirements: "4. Historic resources report. The applicant shall provide to the department a report presenting the findings of the studies and analyses conducted pursuant to subdivisions 1 through 4-3 of this subsection, <u>along with all data and supporting documents.</u> The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on historic resources identified in subdivisions 1, 2, and 3 of this subsection."	Transcription error corrected with approval of Offshore/Coastal RAP. Based on Public Comment and Consensus Recommendations of Offshore/Coastal RAP.
40 C 1 b	Analysis of other natural resources. Natural heritage resources. Field studies.	Subsection reference corrected.	Corrected subsection reference to accommodate addition of new subsection.
40 C 2 a	Analysis of other natural resources. Scenic resources.	Subsection reference corrected.	Corrected subsection reference to accommodate addition of new subsection.
* 50 A 2	Determination of likely significant adverse impacts.	Additional requirement added: "2. State-listed T&E wildlife are found to occur within the disturbance-zone; <u>or the disturbance zone is located on or within one (1) mile of a known or potential sea turtle nesting beach.</u> "	Consensus recommendation of Offshore/Coastal RAP.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 50 A 3	Determination of likely significant adverse impacts.	Additional requirement added: "3. Within the Coastal Avian Protection Zones, the applicant's field studies indicate that significant adverse impacts to avian resources are likely, or the applicant stipulates that existing scientific analysis, as reflected on the CAPZ map, supports a conclusion that significant adverse impacts to avian resources are likely.	Consensus recommendation of Offshore/Coastal RAP.
* 60 B 2	Mitigation plan. Mitigation measures for significant adverse impacts to wildlife shall include:	Additional requirement added: "2. For proposed projects where the disturbance zone is located on or within one (1) mile of a known or potential sea turtle nesting beach, the applicant shall take all reasonable measures to avoid significant adverse impacts, or shall demonstrate in the mitigation plan what significant adverse impacts cannot practicably be avoided, and why additional proposed mitigation actions are reasonable. Mitigation measures shall include the following:"	Consensus recommendation of Offshore/Coastal RAP.
* 60 B 2 a	Mitigation plan requirements.	Specification of mitigation measures for impacts to sea turtle nesting areas: "a. Avoiding construction within likely sea turtle crawl or nesting habitats during the turtle nesting and hatching season (May 20 – October 31). If avoiding construction during this period is not possible, then conducting daily crawl surveys of the disturbance zone (May 20 – August 31) and one (1) mile beyond the northern and southern reaches of the disturbance zone (hereinafter "sea turtle nest survey zone") between sunrise and 9:00 a.m. by qualified individuals who have the ability to distinguish accurately between nesting and non-nesting emergences."	Consensus recommendation of Offshore/Coastal RAP.
* 60 B 2 b	Mitigation plan requirements.	Specification of mitigation measures for impacts to sea turtle nesting areas: "b. If construction is scheduled during the nesting season, then including measures to protect nests and hatchlings found within the sea turtle nest survey zone."	Consensus recommendation of Offshore/Coastal RAP.

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 60 B 2 c	Mitigation plan requirements.	Specification of mitigation measures for impacts to sea turtle nesting areas: “c. Minimizing nighttime construction during the nesting season, and designing project lighting during the construction and operational phases to minimize impacts on nesting sea turtles and hatchlings.”	Consensus recommendation of Offshore/Coastal RAP.
* 60 B 3	Mitigation plan requirements.	Requirements for avian resources added: “3. For avian resources within any of the Coastal Avian Protection Zones that are referenced in 9VAC15-40-40 A 5, the applicant shall take all reasonable measures to avoid significant adverse impacts, or shall demonstrate in the mitigation plan what significant adverse impacts cannot be practically be avoided, and why additional proposed mitigation actions are reasonable.”	Consensus recommendation of Offshore/Coastal RAP.
60 B 4	Mitigation for bats.	Subdivision number changed from 9VAC15-40-60 B 2 to 9VAC15-40-60 B 4 to accommodate new subdivisions.	Technical correction.
* 60 B 5 a	Post-construction monitoring	<p>Subdivision number changes from 9VAC15-40-60 B 3 to 9VAC15-40-60 B 5 to accommodate new subdivisions.</p> <p>Clarification statement added: “a. Estimate the level of avian and bat fatalities associated with the wind energy project, accounting for scavenger removal and searcher efficiency; <u>however, estimates of avian and bat fatalities shall not be required for areas seaward of the mean low-water shoreline.</u>”</p>	<p>Technical correction.</p> <p>Consensus recommendation of Offshore/Coastal RAP – This provision reflects the fact that effective means for evaluating bird and bat fatalities over water do not exist and/or are not commercially available at the present time.</p>

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 60 B 6 a	Post-construction wildlife mitigation and management	<p>Clarification statements added and Editorial revisions made to clarify the requirements: “a. Post-construction mitigation. After completing the initial one (1) year of post-construction monitoring, the owner or operator shall submit <u>the first year’s monitoring data and a revised mitigation plan detailing the</u> consisting of his proposed monitoring and mitigation actions expected to be implemented for the remainder of the project’s operating life. <u>Such mitigation actions shall be designed to address the impacts revealed by the initial year of post-construction monitoring. One (1) year after the revised mitigation plan is submitted, and annually thereafter, the owner or operator shall submit a report consisting of the results of ongoing monitoring, including data and supporting documents, an explanation of how the mitigation measures reflect results indicated by the monitoring data, and documentation showing expenditures and lost revenues attributable to curtailment, other mitigation actions, and monitoring.</u>”</p>	<p>Revisions based on public comments and staff recommendations. In part, these changes more specifically direct the owner or operator to employ “adaptive management,” which was the intent of the RAP. The change is also one example of a provision where DEQ requires “data and supporting documents.” These changes were made in response to public comments that asked DEQ to collect actual data and reports, rather than summaries of them.</p> <p>Addition made in response to suggestion by DGIF staff; to clarify that DEQ will need an explanation of how monitoring data informed the owner or operator’s mitigation plan and not just a “data dump.” Monitoring data are intended to be used in “adaptive management” decisions.</p>

Section number	Requirement at proposed stage	What has changed	Rationale for change
60 B 6 b	Amendment of mitigation plan	<p>Clarification statements added and Editorial revisions made to clarify the requirements: “b. Amendment of mitigation plan. After three (3) years of post-construction mitigation efforts, the owner or operator of the project may initiate a consultation with the department to propose amendments to the mitigation plan. The owner or operator shall submit any proposed amendments of the mitigation plan to the department. The department may approve the proposed amendments if the department determines that the proposed amendments will avoid or minimize adverse impacts to a demonstrably equal or greater extent as the mitigation measures being implemented at that time. Alternatively, the department may approve the proposed amendments to the mitigation plan if the owner or operator demonstrates that the mitigation measures being implemented at that time are not effectively avoiding or minimizing adverse impacts, and the owner’s or operators proposed amendments are preferable methods to mitigate for ongoing adverse impacts. For example, proposed amendments may include in which case the owner or operator may propose and the department may approve ways of offsetting ongoing adverse impacts, such as funding research or preserving habitats.”</p>	<p>Revisions based on public comments and staff recommendations.</p>
70 A	Site plan and context map requirements	<p>Editorial revisions and clarification statement added: “A. The applicant shall submit a site plan that includes maps showing the physical features, <u>topography</u>, and land cover of the area within the site, both before and after construction of the project. The site plan shall be submitted at a scale sufficient to show, and shall include, the following: (i) the boundaries of the site; (ii) the location, height, and dimensions of all existing and proposed wind turbines, other structures, fencing and other infrastructure; (iii) the location, grades, and dimensions of all temporary and permanent on-site and access roads from the nearest county or state maintained road; (iv) existing topography; and (v) (iv) water bodies, waterways, wetlands, and drainage channels.</p>	<p>Revisions based on staff and public comment. The change accommodates a commenter’s request that topography be shown both before and after construction.</p>

Section number	Requirement at proposed stage	What has changed	Rationale for change
* 70 A	Site plan and context map requirements.	Nearshore requirement added: "For any part of a site that is located in nearshore waters, the site plan shall also include bathymetry; the location and depth of underground cables, transmission lines and pipelines; navigational channels; and beaches, marshes, and other emergent terrestrial features."	Consensus recommendation of Offshore/Coastal RAP to clarify requirements in nearshore areas.
* 70 B	Site plan and context map requirements.	Nearshore requirements clarified: "B. The applicant shall submit a context map including the area encompassed by the site and within five (5) miles of the site boundary. The context map shall show state and federal resource lands and other protected areas, <u>Coastal Avian Protection Zones</u> , historic resources, state roads, waterways, locality boundaries, forests, open spaces, and transmission and substation infrastructure. <u>If any part of a site is located in nearshore waters, the context map shall also include bathymetry; navigational channels; commercially licensed fixed fishing devices; permittee's aquaculture operations; shellfish leases; public shellfish grounds; artificial reefs; and submerged aquatic vegetation.</u> "	Consensus recommendation of Offshore/Coastal RAP to clarify requirements in nearshore areas.
90 A	Public participation.	Grammatical clarification: "A. Before the initiation of any construction at the small wind energy project, the owner or operator applicant shall <u>comply with this section</u> . <u>The owner or operator shall first</u> publish a notice once a week for two consecutive weeks in a major local newspaper of general circulation informing the public that he intends to construct and operate a project eligible for a permit by rule. No later than the date of newspaper publication of the initial notice, the owner or operator shall submit to the department a copy of this notice along with electronic copies of all documents <u>that the applicant plans to submit in support of the application...</u> "	Revisions based on staff and public comment. The change was made to clarify who is responsible for taking actions prescribed in the section, in response to a point raised in public comment.

Section number	Requirement at proposed stage	What has changed	Rationale for change
90 A 3	Public participation - contents of public notice.	Clarification of requirements: "3. Announcement of a 30-day comment period in accordance with subsection D-C of this section, and the name, telephone number, address, and email address of the owner's or operator's representative <u>applicant</u> who can be contacted by interested persons to answer questions or to whom comments shall be sent."	Revisions based on staff and public comment.
90 A 4	Public participation - contents of public notice.	Correction of subsection reference: "4. Announcement of the date, time, and place for a public meeting held in accordance with subsection C-D of this section; and..."	Revisions based on staff and public comment.
90 A 5	Public participation - contents of public notice.	Clarification of requirements: "5. Location where copies of the documentation to be submitted to the Department in support of the permit by rule application <u>will be available for inspection.</u> "	Revisions based on staff and public comment. Grammatical clarification.
90 B	Public participation - copy of documentation.	Clarification of requirements: "B. The owner or operator shall place a copy of the documentation in a location accessible to the public <u>during business hours for the duration of the 30-day comment period,</u> in the vicinity of the proposed project.	Revisions based on staff and public comment. Change accommodates a commenter's desire that the documents be available during business hours for the duration of the comment period.
* 90 C	Public participation.	New requirement added: "C. The public shall be provided at least 30 days to comment on the technical and the regulatory aspects of the proposal. The comment period shall begin no sooner than 15 days after the applicant initially publishes the notice in the local newspaper."	Revisions based on staff and public comment. One commenter was especially concerned about the timing of notice within the comment period. His suggestions were weighed and balanced with the recommendations of the RAP in redrafting this provision.
* 90 D	Public participation - public meeting requirements.	Subsection renumbered to accommodate additional subsection. Requirements clarified: " C-D . The owner or operator applicant shall hold a public meeting not earlier than 15 days after the initial publication of the notice required in subsection A of this section <u>beginning of the 30-day public comment period</u> and no later than seven days before the close of the 30-day comment period..."	Technical correction. Revisions based on staff and public comment.

Section number	Requirement at proposed stage	What has changed	Rationale for change
90 D	Public participation - public meeting requirements.	Requirements for nearshore projects clarified: "...The meeting shall be held in the locality or if the project is located in more than one locality, in a place proximate to the location of the proposed project; <u>however, for projects located in nearshore waters or on state owned submerged lands, the meeting shall be held in the locality that is the closest distance from the approximate center of the project's disturbance zone.</u> "	Consensus recommendation of Offshore/Coastal RAP to clarify requirements in nearshore areas. This change represents the RAP's desire to take a common-sense approach to prescribing the location of the public meeting, when the project is located in nearshore waters.
90 D	Public participation - 30 days	Original subsection language deleted.	Technical correction to clarify requirements.
90 E	Public participation - public comments.	Clarification of requirements: "E. For purposes of this chapter, the applicant and any interested party who submits written comments on the proposal to the owner's or operator's representative <u>applicant</u> during the public comment period, or who signs in and provides oral comments at the public meeting, shall be deemed to have participated in the proceeding for a permit by rule under this chapter and pursuant to Section 10.1-1197.7 B of the Code of Virginia."	Revisions based on staff recommendation and public comment.
120 A	Internet accessible resources.	Addition of subsection number and revisions for clarification of requirements: "A. This chapter refers to resources to be used <u>by applicants in gathering information to be submitted to the department.</u> "	Revisions based on staff recommendation and public comment.
120 B	Internet accessible resources - Internet available resources.	Subsection numbering revised to accommodate revised numbering.	Technical correction.
120 B 4	Internet accessible resources - Internet available resources.	Correction of reference citation: "4. The Natural Communities of Virginia, Classification of Ecological Community Groups, Second Approximation, 2006 <u>Version 2.3</u> , Virginia Department of Conservation and Recreation..."	Revisions based on staff recommendation and public comment – technical correction from DCR.

Section number	Requirement at proposed stage	What has changed	Rationale for change
120 B 6	Internet accessible resources - Internet available resources.	Addition of reference to "Virginia Wildlife Action Plan".	Clarification of reference.
120 C	Internet accessible resources - Internet applications.	Subsection numbering revised to accommodate revised numbering.	Technical correction.
120 C 3	Internet accessible resources - Internet applications.	Correction of reference citation: "3. Virginia Fish and Wildlife Information Service or Wildlife Environmental Review Map Service , 2010, Virginia Department of Game and Inland Fisheries. Available at the following Internet address: http://www.vafwis.org/fwis/ . Note: This website is maintained by DGIF and it does require registration for use is accessible to the public as "visitors" or to registered subscribers. Registration, however, is required for access to resource- or species-specific locational data and records. Assistance and information may be obtained by contacting DGIF, Fish and Wildlife Information Service, 4010 West Broad Street, Richmond, Virginia 23230, (804) 367-1000 (804) 367-6913."	Revisions based on staff recommendation and public comment – technical corrections from DGIF.
130	Small wind energy projects less than 5 megawatts.	Clarification: " <u>Part III - Notification and Other Provisions for Projects of Five (5) Megawatts or Less</u>	Revisions based on staff recommendation and public comment – editorial correction.
130	Small wind energy projects less than 5 megawatts.	Clarification: "9VAC15-40-130. Small wind energy projects less than of 5 megawatts <u>or less</u> ."	Revisions based on staff recommendation and public comment – editorial correction.
130 B	Small wind energy projects greater than 500 kilowatts and less than or equal to 5 megawatts.	Clarification of requirements: " <u>B. The owner or operator of a small wind energy project with a rated capacity greater than 500 kilowatts and less than or equal to 5 megawatts shall:</u> "	Revisions based on staff recommendation and public comment – editorial correction.

Section number	Requirement at proposed stage	What has changed	Rationale for change
130 B	Small wind energy projects greater than 500 kilowatts and less than or equal to 5 megawatts.	Clarification of requirements - revisions to reflect subsection renumbering: " 1. notify Notify the department by submitting a certification by the governing body of the locality or localities wherein the project will be located that the project complies with all applicable land use ordinances and applicable local government requirements"; <u>and,</u>	Revisions based on staff recommendation and public comment.
* 130 B	Small wind energy projects greater than 500 kilowatts and less than or equal to 5 megawatts.	Requirement added: "2. For projects located in part or in whole within zones 1, 2, 2, 4, 5, 10, 11, 12, or 14 on the Coastal Avian Protection Zones (CAPZ) map, contribute \$1,000.00 per megawatt of rated capacity, or partial megawatt thereof, to a fund designated by the department in support of scientific research investigating the impacts of projects in CAPZ on avian resources."	Recommendation of Offshore/Coastal RAP to clarify requirements in specific Coastal Avian Protection Zones - This provision had consensus support from the Offshore/Coastal RAP except for one negative vote.

Explanatory note regarding the recommendations of the Offshore/Coastal Wind RAP for 9VAC15-40-130 B 2: With the exception of only one provision (9VAC15-40-130 B 2), all of the RAP-recommended provisions in this draft regulation received unanimous acceptance by the Offshore/Coastal RAP; that is, no one at the RAP meeting objected to the provisions as presented or modified via discussion; everyone either agreed with the provision or "could live with it." DEQ staff was authorized by the director to submit as public comment the suggested provisions where the Offshore RAP reached "general consensus." Some people believe that "consensus" - especially "general consensus" - does not require unanimity. Rather than debate the definition of "consensus," this provision is presented with the following explanation:

A RAP member suggested that an additional requirement be set forth in this section (9VAC15-40-130) of the regulation for very small projects (meaning over 500 kW to 5 MW) located in the CAPZ. He and other RAP members commented that one or two turbines in these locations might do significant harm to avian resources because the CAPZ are generally known as migratory, staging, and wintering areas of often international importance. RAP members further noted that several of these very small projects could conceivably exist within a zone. Few if any research studies exist to show the actual post-construction impacts of very small projects. With the exception of one negative vote, the Offshore RAP agreed that a modest financial contribution should be required for these very small projects in the CAPZ to support research about avian impacts.

This additional requirement is consistent with the existing approach of defining reduced PBR requirements for very small projects. That is, all projects in this size category must provide notice and local government certification (requirements number one and two on the list of statutory and proposed regulatory requirements). Because of the critical importance of avian resources in the CAPZ, an addition to the list is suggested for very small projects in those areas. Pursuant to numbers seven and eight on the list of PBR requirements, an applicant may bypass avian field studies and stipulate that existing scientific analysis, as reflected on the CAPZ map, supports a conclusion of likely significant adverse impact. Probably the chief mitigation options (suggested by the RAP for DEQ Guidance) for projects over 5 MW in the CAPZ are financial contributions to research or habitat protection for avian resources. Similarly, this additional provision requiring a financial contribution for research for very small projects in the CAPZ is a scaled-down version of numbers seven and eight in the full PBR list of requirements. It resembles a "mini-mitigation" requirement in those CAPZ map zones where developers of larger wind projects are allowed to stipulate to likely significant adverse impacts to avian resources and to make a financial contribution as an offset for avian impacts. So, for very small projects in specified CAPZ map zones, an applicant would provide notice, local government certification, and a modest financial contribution to help "offset" coastal avian impacts.

It should also be noted that for the record that one RAP member did not object to this provision for avian resources in the CAPZ but asserted that analogous protection should also be afforded for historic resources in the CAPZ. He acknowledged that time constraints made consideration of a historic resource provision impracticable at this time.

Public comments - Comment Period June 21 - August 20, 2010

Please summarize all comments received during the public comment period following the publication of the proposed stage, and provide the agency response. If no comment was received, please so indicate.

Commenters	Comments by Category	Agency response
<p>Belinsky, Tammy; Harold McCall; and Carol White</p>	<p>Authorizing Statute:</p> <p>The authorizing statute for the proposed regulation is vague and unconstitutional. Virginia Code §10.1-1197.6 (B) (8) is triggered on the finding that "significant adverse impacts to wildlife or historic resources are likely." Significance is a subjective measure that is not defined by the Code.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>The statute cannot be changed by regulatory action.</p> <p>As stated in responses to comments during the first comment period, the Wind RAP chose to indicate "significance" in an operational way – by stating which results of required analyses would require DEQ to find that "significant adverse impacts to wildlife or historic resources are likely."</p>
<p>Dodds, Pam - Montrose, WV</p> <p>Miller, Lucile</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Bats:</p> <p>DEQ should adopt the alternative of NO BUILD in areas where bats are known to roost in trees or hibernate in caves within a 50 mile radius of the proposed wind project and in areas within any 300 mile migratory pattern. It has already been established in studies by bat experts that bat mortality is so great that wind projects are referenced with regard to the number of bats killed per turbine. Additionally, the slaughter of bats by industrial scale wind turbines cannot be mitigated because it is the mating behavior of male bats to seek the highest tree, which they perceive to be the wind turbine itself. The "trigger" proposed by DEQ for mitigation concerning bat mortality is a violation of Virginia's laws protecting wildlife. It is an obvious conclusion that lawsuits will result from such a provision in the "Permit by Rule."</p> <p>The PBR gives no directions regarding bat acoustic surveys as to how many nights or the time of year or weather conditions when the surveys shall be carried out. The survey becomes one that can be manipulated to produce a desired result rather than one that produces sound scientific information that can be used to make informed decisions.</p> <p>The requirements for evaluating negative impacts to bats are totally deficient. There is no consideration of the cumulative negative impacts of numerous wind projects on bats.</p> <p>Has the DEQ considered the cumulative impact on bat populations due to the combined impacts of white-nose syndrome and turbine-related mortality?</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>The issues of how to address impacts on bats were previously resolved through consensus of the members of the Regulatory Advisory Panel.</p> <p>The RAP developed consensus recommendations regarding the details of how acoustic surveys should be carried out. Staff intends to utilize these recommendations when agency Guidance is drafted.</p> <p>The RAP considered and resolved by consensus the issues of project impacts on bats as required by the provisions of the 2009 statute. The statute prescribes conditions for DEQ to approve an application, and makes no reference to cumulative impacts of multiple projects.</p> <p>White-nose syndrome was discussed by the RAP.</p>

Commenters	Comments by Category	Agency response
<p>Dodds, Pam - Montrose, WV</p>	<p>Best Management Practices:</p> <p>The PBR should require the use of "Best Management Practices."</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>These issues are part of the broad array of options considered by the RAP; the consensus recommendations of the RAP were adopted by DEQ.</p>
<p>Eccles, Stephen D. - Virginia Society of Ornithology</p> <p>Karr, Sue - Bent Mountain, VA</p>	<p>Birds:</p> <p>The comments provided by Mr. Rick Webb and Ms. Lucile Miller on the draft regulations raise several serious questions that need to be addressed by DEQ before the draft regulations could be considered satisfactory from the point of view of bird conservation.</p> <p>Raptor migration surveys are required in the proposed regulations but there are no standards and protocols specified in conducting the surveys (no "upfront" language).</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>The Regulatory Advisory Panel recommended specific procedures to be utilized for the surveys and analyses prescribed in the proposed regulation. Not all of this "how-to" information was deemed by the RAP to be appropriate for the regulation itself. (For instance, some provisions were "suggested" rather than mandatory, some procedures are subject to change as technology advances, etc.) This information will appear in DEQ Guidance, which will be completed after the regulation becomes final. Copies of the RAP's suggested Guidance provisions are available on request.</p>
<p>O'Hara, Frank J. - Alleghany Front Alliance</p>	<p>Decommissioning:</p> <p>The proposed rulemaking disregards decommissioning. The conditions required for decommissioning require identifying the process and expected outcome, including a bonding requirement.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Consistent with legal guidance from the Office of the Attorney General, the RAP resolved by consensus that siting (land use), noise, signal interference, decommissioning and similar issues are not within DEQ's authority under this statute, and they remain under the purview of local government. The 2009 statute directs DEQ to develop one or more permits by rule for the "construction and operation" of renewable energy projects.</p>

Commenters	Comments by Category	Agency response
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Scott, Michael T. - Bent Mountain, VA</p> <p>Scott, Jim - Bent Mountain, VA ("Virginia" on Town Hall)</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Definitions:</p> <p>The definition of "disturbance zone" is arbitrary.</p> <p>With a "disturbance zone" defined as the directly impacted area plus a margin of 100 feet, how was it determined that evaluation of the disturbance zone is sufficient for evaluation of potential wildlife impacts?</p> <p>The word 'significant' is never defined and is the most 'significant' word used in the entire PBR. Define significant in each context for which it is used.</p> <p>The "Permit by Rule" glossary, "9VAC15-40-10. Definitions." describes the "Small Renewable Energy Projects (Wind)" by the megawatts being produced, but fails to describe a) the immensity of the industrial-scale wind turbines that would be installed and b) the vast areas of deforestation and clearing required for haul road construction.</p> <p>The first problem with both the legislation and the proposed regulation is the definition of a "small wind energy project" which is specified as any wind project up to 100 MW rated capacity. By any reasonable definition a 100-MW wind energy project is a "large wind energy project". The regulations proposed by DEQ will provide only minimal protection for western Virginia's natural resources from degradation associated with what is, in fact, large scale industrial development. How was it determined that a disturbance zone defined as the directly impacted area plus a margin of 100 feet provides a sufficient criterion for evaluation of potential wildlife impacts?</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Issues raised regarding "definitions" were previously addressed and resolved through consensus of the members of the Regulatory Advisory Panel.</p> <p>The specific definition of "disturbance zone" and determination of the area to be evaluated were resolved through consensus of the members of the Regulatory Advisory Panel. Wildlife experts on the RAP recommended that the disturbed area plus a buffer of 100 feet was suitably protective.</p> <p>The issue of how to define "significance" was discussed and resolved by members of the Regulatory Advisory Panel. In effect, the RAP chose to define the term operationally; that is, the occurrence of any of the actions/results/situations enumerated in proposed 9VAC15-40-50 constitutes a mandatory finding by DEQ that "significant" adverse impacts are likely, and a mitigation plan for the specified resources will be required.</p> <p>"Small renewable energy projects" are defined by statute, and the statute cannot be changed by regulatory action.</p>

Commenters	Comments by Category	Agency response
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Dodds, Jr. Arthur W. - Laurel Mountain Preservation Association, Inc.</p> <p>JD - Roanoke, VA</p> <p>O'Hara, Frank J. - Alleghany Front Alliance</p>	<p>Desktop Analysis:</p> <p>The coarse filter analysis that starts the wildlife impact assessment is entirely inappropriate for the areas where wind resources are desirable for exploitation. The desktop analysis prescribed is wholly inadequate, improper, and reckless for use in areas that have not been investigated or even visited to enable to catalogue and quantify natural resource assets. The Department has not justified the use of a two mile boundary for desktop analysis. The Department gives no support for any of the limited criteria proposed.</p> <p>In order to facilitate proper evaluation of environmental studies conducted by wind companies, all studies should be submitted to reputable scientific journals for peer review prior to being accepted by DEQ for evaluation.</p> <p>Onsite evaluation of wildlife and plant communities should also be required. The allowance to review impacts two miles away is not reasonable. There should not be an either or choice here both the desktop surveys and the review of impacts should be required; use "and" instead of "or".</p> <p>The analysis of beneficial and adverse impacts requires the desktop survey and maps on wildlife known to occur within the area are inadequate. An important component of wildlife management is habitat analysis because habitat provides food, cover, and other factors required for population survival. Using only visual location will produce bias use patterns. Bat acoustic surveys, mist-netting or harp-trapping surveys should be conducted under the guidelines established by the US Fish and Wildlife Service. 5) Study analysis should extend beyond descriptive measures. All studies should contain spatial and time components.</p> <p>A desktop survey analysis is limiting. Habitat of rare and threatened (R&T) species are not obvious. Field survey observations may be required. Desktop surveys and maps are required of coastal avian migration corridors. Missing is avian migration corridors that occur in the Ridge and Valley Zones that show essential wildlife habitats, flyways and important bird areas for songbirds and raptors. The National Aviary should be consulted.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Issues raised were previously addressed and resolved through consensus of the members of the Regulatory Advisory Panel. Regarding desktop analyses of wildlife resources, the Living Resources Subcommittee and then the plenary RAP carefully established and reviewed these surveys and other analyses.</p> <p>Staff believes that some commenters may not have understood the intended meaning of the proposed provision; therefore, the use of "and" and "or" were modified for the sake of clarification.</p> <p>The provisions were resolved by consensus recommendations of the RAP. If and how habitat factors should be taken into account were specifically addressed, consistent with legal advice concerning DEQ's statutory authority over habitat issues. The RAP carefully analyzed the department's authority to require mitigation plans for wildlife and historic resources, and weighed the statute's meaning of the degree to which that authority extends to habitat.</p> <p>As stated previously, the RAP formulated suggested protocols for carrying out surveys, and staff intends to utilize these recommendations in agency Guidance.</p> <p>T&E and avian measures were discussed at length by the RAP, and provisions are based on consensus recommendations of the RAP.</p>

Commenters	Comments by Category	Agency response
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Dodds, Pam - Montrose, WV</p> <p>JD - Roanoke, VA</p> <p>Scott, Jim - Bent Mountain, VA ("Virginia" on Town Hall)</p>	<p>Economic Analysis:</p> <p>The economic analysis required is inadequate because it fails to address the cost of enforcement.</p> <p>The Economic Analysis document indicates that real estate value will increase for wind projects, but does not address the fact that most real estate is leased for this and there is no evaluation of reduction of value because people don't want property near wind projects.</p> <p>The continual economic survival of rural communities depends on the concept of rural life and unspoiled countryside, away from the commercial and industrial development that is characteristic of our towns and cities. There are economic impacts. The impression that the regulation leaves is that there are no negative impacts. This is just not true.</p> <p>The Governor's Office should conduct an economic evaluation of the PBR claims.</p> <p>The un-researched statements contained in the economic impact analysis of this regulation are grossly deficient in evaluating the impact to Virginia citizens and businesses. The economic impact analysis must include the fact that industrial wind projects increase the cost of electricity to communities – and the tax burden also necessarily increases because these projects are heavily subsidized (tax payers pay part of cost). Electricity prices increase – taxes increase – this needs to be stated as part of an economic impact assessment. The increased costs associated with wind power will contribute to a slowing of economic growth and have a marked negative economic impact on businesses and also local citizens, already strapped to try to pay higher electric bills. An economic impact analysis should be conducted.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>DEQ staff considered the costs of both "administering and enforcing" the permit by rule when it suggested the proposed permit fees, as required by the statute. Issue resolved through consensus of members of the Regulatory Advisory Panel.</p>
<p>Fernald, Ray - DGIF</p> <p>Smith, Tom - DCR</p>	<p>Editorial:</p> <p>In the references section for "internet applications" the mailing address for the 3rd source should read "Fish and Wildlife Information Service." It is currently missing the word "information."</p> <p>The reference currently listed for the Natural Community Classification in the proposed PBR has been updated and there is now a 2010 edition. The listed date of this reference should be updated in the final PBR.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>These technical corrections have been made.</p>

Commenters	Comments by Category	Agency response
<p>O'Hara, Frank J. - Allegheny Front Alliance</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p>	<p>Emergency Communication:</p> <p>The proposed rulemaking fails to address existing or future emergency communication networks, towers, or electrical equipment.</p> <p>A certification of compliance with emergency services requirements and responsibilities should be required.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Comments acknowledged and taken into consideration to the extent authorized by the 2009 statute.</p>
<p>Belinsky, Tammy; Harold McCall; and Carol White</p>	<p>Enforcement:</p> <p>The enforcement provisions as proposed are meaningless as enforcement is completely discretionary.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>The enforcement provisions of the renewable energy statute are among the most extensive found in any state law, and all statutory provisions are incorporated by reference into the proposed regulation. The proposed regulation then includes even further enforcement provisions that have been utilized in other DEQ regulations.</p>
<p>Dodds, Jr. Arthur W. - Laurel Mountain Preservation Association, Inc.</p>	<p>Environmental Regulations – Other:</p> <p>The regulations in the PBR do not provide any comment concerning the requirements for NPDES permits and do not indicate the responsibilities of DEQ with regard to site inspection or collaboration with DCR for guidance in issuing NPDES permits. Further, there is no guidance about the process for insuring that construction should not occur if NPDES requirements are not met.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Pursuant to both the statute and proposed regulations, the applicant must certify that he has “applied for or obtained all necessary environmental permits” (9VAC15-40-30 A 12). If a “NPDES” permit (administered in Virginia as “VPDES”) is necessary, then the applicant must go through all the separate procedures of applying for and complying with that permit, under DEQ’s separate regulatory and enforcement authority for that permit program. The PBR does not abrogate the authority of DEQ or any other permitting agency for those separate permits. The PBR provisions are independent, additional requirements, as is stated in the 2009 statute.</p>

Commenters	Comments by Category	Agency response
<p>Dodds, Pam - Montrose, WV</p>	<p>Erosion and Sediment Control Laws:</p> <p>The “Permit by Rule” must specify the DEQ’s responsibility to assure and enforce the requirements of the Code of Virginia that pertain to Virginia Erosion and Sediment Control (ESC) Regulations. DEQ will no doubt receive numerous lawsuits if the “Permit by Rule” does not cause it to enforce existing environmental laws established by the Code of Virginia.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>This issue was addressed by the Regulatory Advisory Panel with benefit of legal advice from the Office of the Attorney General. Erosion and sediment issues fall under the authority of the Department of Conservation and Recreation, not under DEQ. To the extent that E&S-related permits are necessary, the applicant is required by DEQ’s permit by rule statute to submit, within the application, a certification that the applicant has received or applied for these permits (and all necessary environmental permits).</p>
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Firor, Eve - Friends of Beautiful Pendleton County</p> <p>Laska, Richard M - Laska's Grove</p> <p>O'Hara, Frank J. - Alleghany Front Alliance</p> <p>Porter, Christine - DOD</p> <p>Waring,</p>	<p>Federal; State; and Local Requirements/Regulations:</p> <p>The proposed regulation appears to attempt to illegally pre-empt federal authority to protect threatened and endangered species under the federal endangered species act. It should be made clear that applicants must still fulfill all federal requirements.</p> <p>These presently written PBR requirements seem to circumvent the very Federal and Commonwealth laws written and designed for the protection of the environment and do not provide for input from the Federal and commonwealth agencies charged with the enforcement of those laws.</p> <p>Federal and state decision makers should carefully consider the following pieces of legislation: the Endangered Species Act; the National Environmental Protection Act; the Bald Eagle Protection Act; the Migratory Bird Treaty Act; the National Forest Management Act; the Federal Land Policy and Management Act and the National Historic Preservation Act to assess the impact of industrial wind energy projects. Federal and state decision makers must involve the various Federal and state agencies in assessing the impact of industrial wind energy projects. Numerous state laws, regulations, procedures and projects have been enacted or implemented in states for the protection of the environment and citizens within the state and should be given full consideration in decisions to allow siting of industrial wind energy projects in</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Federal requirements are not pre-empted. State regulations are generally silent regarding requirements of other levels of government unless directed by legislation to reference them.</p> <p>Other state requirements are not abrogated. Please see the statute and proposed 9VAC15-40-3- A 12, which requires that all necessary environmental permits be obtained or applied for. These other permits will be approved and enforced by the issuing agency, just as they have always been.</p> <p>Both the statute and proposed regulation (9VAC15-40-30 A 2) require certification by the local government that the project “complies with all applicable land use ordinances.” Local government certification is a required part of the PBR application.</p>

<p>Elizabeth G. - Army Corps of Engineers - Water Resources Division & John Evans - Army Corps of Engineers</p>	<p>the mountain forests within a state's boundaries.</p> <p>The proposed rule fails to take into consideration existing agreements with, and interests of, other governmental entities. Specifically, adjacent States and the Federal government.</p> <p>The proposed rulemaking ignores county authority to enact zoning ordinances or issue building permits.</p> <p>The rule making does not require consultation with the US Fish and Wildlife Service. All desktop surveys, maps, reports, and studies should be provided to the US FWS for review and comment. Ninety days is an inadequate time length to allow for federal response and consultation. There should be interagency cooperation between local, state and federal agencies.</p> <p>DOD needs earlier and more reliable notice of proposed wind projects to make a timely evaluation of projected impacts to operations and training. The regulations as drafted provide no direct notice to DOD. At present, we estimate we will require 30 to 90 days to review project proposals for unacceptable mission impacts with the various commands and headquarters potentially impacted by a typical wind development.</p> <p>Close alignment of the Commonwealth permitting process with the federal permitting process will significantly reduce uncertainty, duplication of effort and inconsistent mitigation requirements for projects sited on submerged lands or wetlands.</p> <p>The Virginia Regulatory Town Hall document is incorrect under the "Requirement more restrictive than federal" section, where the document states that, "There are no applicable federal regulations." Indeed, activities proposed by the regulation must meet a great number of federal requirements and applicants cannot construct PBR projects without federal permits issued and verified by the Corps of Engineers. A Department of the Army permit under Section 10 and Section 404 will be required to install structures, perform work, dredge, and discharge dredge and fill material in all waters of the United States (including adjacent wetlands and outer continental shelf waters beyond the Virginia 3-mile territorial limit). In evaluating the permit application, we will conduct a public interest review that weighs the foreseeable benefits of the proposed project against reasonable foreseeable detriments. Prior to making a decision, we will fully consider the views of the Federal and State resource</p>	<p>The notice provisions were addressed during discussions of the Regulatory Advisory Panel. In response to input from a representative of DOD, the proposed section 9VAC15-40-90 A was revised during the RAP process. The department has continued to evaluate the notice provisions and plans to address further details in DEQ Guidance. Notice to specific entities is generally not addressed by regulation, but rather by MOU, Guidance, etc.</p> <p>The department's regulations must implement the provisions of this statute. The department also welcomes the opportunity to work with federal agencies, other state agencies, and other relevant entities to minimize uncertainty, duplication, and inconsistencies of the various programs that regulate these projects.</p> <p>The commenter provides helpful explanations about federal processes, especially permitting processes by the Army Corps of Engineers.</p> <p>Virginia's "small renewable energy projects" legislation provides a regulatory framework for protecting natural resources, specifically "wildlife" and "historic resources." To the best of our knowledge, these resources fall primarily under the authority of agencies -- at both the federal and state levels -- that have advisory, as opposed to regulatory, authority.</p> <p>The members of the Regulatory Advisory Panel considered the wildlife-protection</p>
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	<p>agencies, local government, and the general public. The Corp's District Commander is required to consult with the U.S. Fish and Wildlife Service and/or the National Oceanic and Atmospheric Administration consistent with the Endangered Species Act of 1973, as amended if the issuance of a Corps permit may affect T&E species or their critical habitat. The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 also requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The District Commander must also comply with Section 106 of the National Historic Preservation Act if issuance of a permit could affect historic resources. The Corps is required to complete coordination with the Virginia Department of Historic Resources and possibly the Advisory Council on Historic Resources if the proposed Corps permit activity may affect historic properties, including the viewshed. There are currently 59 shallow draft and 13 deep draft navigation projects authorized within the PBR area. There are also other navigation channels that are not within the civil works authority of the Corps that also need to be taken into consideration. In order to issue a permit, the Corps must determine that the project complies with the 404 (b) (1) EPA guidelines (in the case of 404 actions); and we must also find that the project is not contrary to the public interest.</p>	<p>guidelines being developed by USFWS (primarily via input from DGIF) when developing the recommended wildlife provisions of the proposed wind PBR. Likewise, RAP members considered the historic-resource guidelines of DOI (primarily via input from DHR) when developing the recommended historic-resources PBR provisions. These guidelines would, in the department's view, constitute the federal analog to the mandates of the Virginia statute. It is the department's understanding, however, that these federal standards are <u>not</u> regulatory. They become regulatory to the extent that they are incorporated into regulations like the PBR – or, for that matter, into ACOE-administered permits.</p> <p>It is well settled that state law does not abrogate federal law. An applicant for a wind PBR in Virginia will be expected to meet all applicable federal requirements, including those administered by ACOE. The department looks forward to continuing to work cooperatively with ACOE in administering our respective permit programs in a coordinated fashion.</p>
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Commenters	Comments by Category	Agency response
<p>Rovner, Nicole - TNC</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Financial Cap:</p> <p>The financial cap on wildlife mitigation and post-construction monitoring is too low to permit both adequate monitoring and mitigation, as required by the statute. We recommend that, rather than using an hour-based standard to cap expenses for mitigation and monitoring, DEQ use the dollar-based \$5,000 cap, annually adjusted using the GDPIPD Index.</p> <p>What criteria or rationale support the decision to limit money spent on, or cost of, avoidance of bat mortality to \$5,000 per turbine?</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Members of the Regulatory Advisory Panel resolved through consensus the concept of a financial cap of \$5000/turbine/year for wildlife mitigation and post-construction monitoring. By consensus, the RAP resolved that expenditure of this amount of money each year for the life of the project would constitute an appropriate balance point between protecting natural resources and facilitating renewable energy.</p> <p>The RAP considered several ways of expressing this concept, including both the approach favored by the commenter and the approach proposed in the regulation. Staff's understanding of the RAP's "marching orders" was for the department to select whichever of the suggested mathematical options seemed to work best. All methods were presented as accurate mathematical models for calculating the equivalent of \$5000/turbine/year, corrected over time.</p> <p>The department continued to evaluate the preferred methodology of accurately calculating and expressing the RAP's conceptual consensus of \$5000/turbine/year, based on public comments submitted and conferences with expert economists. The provision in the regulation reflects a decision based on consideration of all of this input.</p>

Commenters	Comments by Category	Agency response
<p>Dodds, Jr. Arthur W. - Laurel Mountain Preservation Association, Inc.</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p>	<p>Forest Resource Impacts:</p> <p>The deforestation of mountain ridges for wind project construction is significantly not environmentally friendly. Not only does such deforestation reduce carbon dioxide sequestration and regulation of water vapor into the atmosphere, but it also causes greater stormwater runoff from precipitation, thereby increasing quantities and velocities of stream water flow in addition to decreasing groundwater recharge.</p> <p>This PBR does not incorporate available knowledge demonstrating that carbon dioxide emissions will probably be increased by construction of industrial scale wind turbine facilities. Deforestation of vast forested mountain ridges will result in less carbon dioxide sequestration.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Forestry issues addressed and resolved through consensus of the members of the Regulatory Advisory Panel, consistent with legal advice from the OAG concerning the scope of DEQ’s authority to require mitigation for resources that are not “wildlife” or “historic resources.” The RAP included a representative of the Department of Forestry.</p>
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Dodds, Pam - Montrose, WV</p> <p>JD - Roanoke, VA</p> <p>O’Hara, Frank J. - Alleghany Front Alliance</p> <p>Scott, Jim - Bent Mountain, VA (“Virginia” on Town Hall)</p> <p>Scott, Michael T. - Bent Mountain, VA</p> <p>Thomas, Larry V. - Allegheny</p>	<p>Health, Safety and Welfare:</p> <p>DEQ must demonstrate exactly how the permit will protect the health, safety and welfare of Virginia citizens when the permit does not purport to regulate human health whatsoever, and beyond that how a license to kill wildlife protects human health.</p> <p>The PBR should include requirements related to "noise". For human health, there must be set-back limits from existing homes.</p> <p>Community Health Impacts - Community concerns about health, safety, impacts on all wildlife and other natural resources (not just a select few) deserve to be considered in this process, These projects impact local communities. Some assessment of the noise impacts to the folks living near these turbines should be required upfront.</p> <p>Health and safety standards are missing from this proposed rulemaking. This is a serious omission. Missing elements not addressed include health and safety. Noise can affect individuals living near the site, but also can affect breeding and nesting habits of wildlife.</p> <p>The proposed regulation does not provide a means of achieving the DEQ stated mission of promoting public health. Provide provisions in the regulation that do protect public health, safety, and welfare.</p> <p>The PBR application must include extensive noise studies for any projects</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>The statute defines the reach of this regulation and limits it to “natural resources.” Issue previously addressed during discussions of the Regulatory Advisory Panel.</p> <p>Noise and setback issues were discussed by RAP, with benefit of legal advice from OAG. Resolved through consensus not to be within DEQ’s statutory authority, but rather under the purview of local government.</p> <p>If the commenters are referring to safety-related setbacks and other similar issues (e.g., noise, shadow flicker, ice throws), then the response is that these issues were addressed by the RAP. Consistent with guidance from the OAG, the issues were found to be within the jurisdiction of local</p>

<p>Highlands Alliance</p>	<p>where there are humans within 2 miles of any turbine to provide for the protection of the nearby citizen's "health & well being". These noise studies must be available for third party review, prior to deeming application complete.</p> <p>What is the basis for not addressing human health concerns in the proposed regulations? What is the basis for not addressing safety concerns in the proposed regulations through public safety related setbacks?</p> <p>Adverse health consequences on people living in the vicinity of turbine installations should be considered. Evidence of adverse health consequences are usually related to repetitive noise and visual flicker. We strongly recommend that the department establish setbacks of one and a half miles from any structure that is inhabited or used by individuals.</p> <p>Noise is a major contributing factor to health issues. There should be a requirement for the development and submittal of a "noise exposure" map of the noise present prior to construction; a "predictive noise" study during construction; a "noise exposure" map of the noise to be expected during operation; and a "predictive noise" study for the decommissioning process. As part of these evaluations, there should also be a requirement to evaluate the expected traffic during these periods.</p>	<p>governments, and not within the statutory authority of DEQ over "natural resources," as prescribed by the "small renewable energy projects" legislation being implemented by these regulations.</p>
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Commenters	Comments by Category	Agency response
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Laska, Richard M - Laska's Grove</p> <p>O'Hara, Frank J. - Alleghany Front Alliance</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Historic Resources:</p> <p>The proposed rule, as written, appears to circumvent the requirements of the National Historic Preservation Act (NHPA). Under that Act, the Commonwealth of Virginia is legally obligated to conduct a formal review of any proposed project which may significantly impact any site on the National Register of Historic Places. Such review requires that a site-by-site survey be conducted prior to issuance of a permit. A disciplined survey and review of each and every historic site within the viewshed is required prior to issuance of any permit. An adequate survey would be, de facto, incompatible with the type of automatic permit issuance system envisioned in the proposed rule.</p> <p>The proposed rule appears to circumvent the requirements of the National Historic Preservation Act (NHPA). A disciplined survey and review of each and every historic site within the viewshed is required prior to issuance of any permit. An adequate survey would be, de facto, incompatible with the type of automatic permit issuance system envisioned in the proposed rule. If the proposed rule does not include adequate procedures to abide by the Sate's legal obligations under NHPA, then the proposed rule is fatally flawed.</p> <p>The proposed rule making omits critical components. The statement "that is included or meets the criteria necessary for inclusion in the landmarks Register" is limiting. Limited state agency resources may prevent interagency consultation. No consideration is attached to county or local historical properties, including birthplaces, cemeteries, or open spaces or cultural landscapes.</p> <p>The proposed requirements should require formal consultation with the US Department of Interior, National Register of Historical Places to determine if the proposed project areas, meets federal evaluation criteria.</p> <p>The draft regulation provides that in the case where a proposed project is likely to significantly diminish the integrity of a historic resource, the mitigation requirement is that the impact be minimized to the extent practicable through design of the project or installation of vegetation or other screening. If impacts cannot be avoided by such measures, then the applicant shall develop a reasonable and proportionate mitigation plan that offsets the adverse impact. What does this mean; does it mean that an applicant might satisfy mitigation requirements by providing protection for historic resources other than the particular historic resource that is adversely affected by the project?</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Historic resources requirements were previously resolved through consensus of the members of the Regulatory Advisory Panel, which included a representative and an alternate representative from the Virginia Department of Historic Resources.</p> <p>In addition, the RAP recommended provisions for DEQ Guidance (which largely incorporate DHR's guidance provisions) that further explain how historic-resources mitigation should be accomplished. The department intends to utilize these recommendations when Guidance is drafted. Copies of the RAP's recommended Guidance provisions are available on request.</p>

Commenters	Comments by Category	Agency response
<p>Firor, Eve - Friends of Beautiful Pendleton County</p>	<p>Infrastructure:</p> <p>This PBR provides little or no consideration for the potential damaging effects caused by the infrastructure of these industrial wind energy projects (i.e. roads; trenches; foundations and property disturbance; mountain tops; hydrology; habitat loss; rights-of-way; substations; grid connections; collateral damages; concrete production and transport; noise pollution issues of vehicles and equipment during the construction phase; noise pollution issues to excavate turbine foundations and trenches during the construction phase; noise pollution issues of equipment during operational phase; light pollution; state and county emergency service requirements and responsibilities are non-existent; comprehensive environmental impact study and report should be mandatory, scrutinized, questioned and verified; fully comprehensive detailed carbon audit should be a mandatory part of the comprehensive environmental impact study, scrutinized, questioned and verified; and comprehensive cultural and historical impact studies and reports should be mandatory, scrutinized, questioned and verified. Infrastructure and carbon audits should be closely reviewed by all decision makers in industrial wind energy decisions and applications.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Issues raised in these comments were addressed by the Regulatory Advisory Panel.</p> <p>Regarding specific issues about construction-related activities, please note that the RAP took these activities into account and recommended protections within the “disturbance zone.” The proposal reflects the RAP’s consensus recommendations in this regard.</p> <p>Please note that the RAP, consistent with legal advice from the Office of the Attorney General, concluded that noise and similar issues do not fall within DEQ’s statutory authority over “natural resources”; authority over these issues lies with local governments.</p>
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Firor, Eve - Friends of Beautiful Pendleton County</p> <p>O'Hara, Frank J. - Alleghany Front Alliance</p> <p>Porter, Christine – DOD</p>	<p>Location/Siting:</p> <p>The wind resources sought to be exploited by the industrial wind industry are largely located on the most remote and previously undeveloped mountain ridges in Virginia. The areas that are sought to be developed are extraordinarily remote and in many cases the wildlife and natural resources that thrive on these islands of diversity have not been inventoried or documented to know even what is at risk.</p> <p>The targets for industrial wind energy projects are remote rural mountains. These areas have caught the attention of historians, anthropologists, biologists, writers, environmental activists and are finally being appreciated for their cultural diversity and environmental history. There is a spiritual mystique to the mountains. Changes to that land should not be taken lightly, especially when those changes may desecrate a way of life that is disappearing rapidly in the United States. Siting an industrial wind energy project in such an area changes the mountain, causing an irreversible and devastating affect on the people and their culture.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>It is the statute that provides that local governments must certify compliance with local land use requirements. The proposed regulation merely repeats this statutory requirement. The Offshore/Coastal Wind Regulatory Advisory Panel discussed at length the question of which entity or entities must provide this certification in areas where jurisdiction is unclear (e.g., in state waters/on state owned submerged land). The Offshore/Coastal Wind RAP resolved by consensus to leave the existing statutory/regulatory provisions about local government certification as they are set forth in the statute, pending determination of the</p>

<p>Rovner, Nicole - TNC</p>	<p>The proposed rule does not include the actual siting requirements, as it pertains to occupied buildings, historical buildings, schools, and roadways. Proper siting is essential to avoid injuries and fatalities. The proposed rulemaking fails to address existing or future emergency communication networks, towers, or electrical equipment.</p> <p>We note that the draft regulations leave land use determinations to the locality. This may create uncertainty when there is no locality with jurisdiction over the site. In other words, there may be no applicable land use ordinances. For the sake of certainty, and to ensure land use impacts are properly reviewed, the regulation should designate a state agency to perform this review normally performed by the locality. Designating any other state agency, such as the agency exercising control over the parcel, would also be effective, so long as it is clear who provides the land use review for projects on state lands.</p> <p>We also take issue with the Agency Background Document's reasoning regarding the implications of its lack of siting authority. Questions over whether DEQ would be asked to "forbid" development at a particular site are not relevant to the concept of mitigation, which seeks to accommodate projects by providing ways to avoid, minimize and offset project impacts, as opposed to preventing the project in the first place.</p>	<p>issue. According to informal guidance from the OAG, the issue cannot be resolved by DEQ's regulatory action. DEQ is seeking clarification of the legal issues via other means. The consensus recommendations of the Offshore/Coastal RAP are submitted in the current rulemaking as public comment. This issue is discussed in DEQ comments submitted along with the Offshore RAP's public comments.</p> <p>Although the language used may vary, the commenter's viewpoint about "siting" may not vary in substance from the department's. By "siting," the agency is generally referring to land use decisions, which are recognized in both the statute and proposed regulation as being within the purview of local governments. The statutory directive to DEQ, by contrast, is to determine whether significant adverse impacts to wildlife and historic resources are likely and, if so, to prescribe necessary mitigation plans to avoid, minimize, and offset these impacts during "construction and operation."</p>
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Commenters	Comments by Category	Agency response
<p>Dodds, Pam - Montrose, WV</p> <p>Dodds, Jr. Arthur W. - Laurel Mountain Preservation Association, Inc.</p> <p>Firor, Eve - Friends of Beautiful Pendleton County</p> <p>Harless, Marion - West Virginia</p> <p>JD - Roanoke, VA</p> <p>Karr, Sue - Bent Mountain, VA</p> <p>Laska, Richard M - Laska's Grove</p> <p>McClain, Mark Roanoke Valley Cool Cities Coalition</p> <p>O'Hara, Frank J. - Alleghany Front Alliance</p> <p>Scott, Jim - Bent Mountain, VA</p>	<p>Miscellaneous:</p> <p>The proposed "Permit by Rule" should be totally discarded. In order to develop a "Permit by Rule" to satisfy the 2009 statute directing DEQ to do so, the DEQ must become educated concerning all aspects of wind energy development and must maintain consistency with existing Virginia environmental laws.</p> <p>The proposed "Small Renewable Wind Energy Projects Permit by Rule" is deficient in several categories and will only serve to cause further destruction of the environment. 1) The statements that "avoiding additional electrical generation from fossil fuels and creating energy independence from foreign oil interests are inaccurate; i.e., Coal-fired generation plants must be used as spinning reserves for wind energy facilities; extra coal or additional gas peaking units must be used to ramp up or down in order to integrate wind energy into the grid; carbon dioxide is emitted from the curing of significant amounts of concrete used in the construction of wind energy facilities; and less than 2% of the oil used in the US is for electricity. There is no scientific basis supporting any statement that wind energy could reduce the use of oil in the US. 2) There may be only 2 or 3 jobs created for each wind project. 3) Wind energy is not environmentally friendly. It is well documented that wind turbines kill hundreds of thousands of bats and birds every year (recorded as number of deaths per megawatt).</p> <p>It is critical to the welfare of the environment and to the welfare of Virginia citizens that the PBR be totally discarded and replaced with an equitable approach that considers all of the deficiencies expressed above. It is essential that DEQ must become informed about the negative impacts caused by the construction of wind projects, even if it is not "politically correct" or "industrially friendly" to protect the environment from industrialization.</p> <p>Under this PBR there will be a proliferation of industrial wind energy projects with little or no environmental review and mitigation requirements.</p> <p>The fact that DEQ comments indicate a belief that giant wind turbines are a "new environmentally friendly industry" is truly troubling. Such statements show that DEQ is not paying attention to environmental engineering studies let alone the available data on adverse impacts on the points mentioned in the rule. Weather and climate change are involved. Historic sites and bat</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>In many cases, specific comments embedded within these summaries have been addressed above.</p> <p>Philosophical or policy-oriented comments expressed by commenters are acknowledged and have been taken into account to the extent authorized by the 2009 statute.</p> <p>The PBR format is prescribed by statute and statutory provisions can only be altered or replaced by the General Assembly, not by regulatory action.</p>

<p>("Virginia" on Town Hall)</p>	<p>involvement alone should compel an immediate cessation of industrial scale wind energy development.</p>	
<p>Scott, Michael T. - Bent Mountain, VA</p>	<p>The regulation will raise the cost of energy in Virginia. Because wind energy is not cost-efficient, it is subsidized. Wind will not replace carbon-based fuels because the wind does not blow when we need it and when it does blow we don't need it. It is terribly inefficient in the mountains. The gross inefficiency must be considered against the amount of environmental impact involved for each PBR - over five miles of ridgeline for each project!</p>	
<p>Thomas, Byron</p>		
<p>Thomas, Larry V. - Allegheny Highlands Alliance</p>	<p>DEQ should consider the use of a tiered approach to differentiate between turbine complexes of 10 & 100 MW - there is a difference of several miles of impact. How will the stringing of PBR sites be addressed? Has the cumulative impact of multiple projects been considered? The PBR applicant should be required to assess all local community impacts to television, radar systems, air travel, etc. prior to considering coverage under the PBR.</p>	
	<p>The process for protecting water sources is relegated to the Dept. of Conservation and Recreation but county locales and the DCR would be unable to monitor projects the size of industrial wind turbines due to the enormous geographic scale. The DEQ proposed regulation for protecting the area surrounding turbines from massive destruction and pollution of water is dismal.</p>	
	<p>The presumption that industrial wind facilities are of benefit to electricity consumers, taxpayers, the environment or the citizens of Virginia is assumed without any factual evidence whatsoever. When a rule is propounded, at a minimum it must meet the standard of serving the public interest. There is no data whatsoever on record to justify issuance of this rule based upon the public interest. Precisely what public interest would be served by this rule?</p>	
	<p>I fully support the efforts of DEQ to standardize and expedite the process of permitting of wind energy installations. I strongly urge that regulations regarding wind energy installations are not subjected to a higher threshold of approval than other projects of similar size and impact. While the environmental <u>benefit</u> of a single wind project is hard to calculate, the cumulative benefit of many such projects will be felt in the reduction of emissions from non-renewable fossil fuel-based energy production, and in the long run will yield an inestimable benefit in terms of energy security and air quality.</p>	

	<p>The estimated costs of developing pre-construction studies are inadequate. The industry or the DEQ rule making underestimates the actual costs to develop reports. Recommend removing the statement: "developing and expanding new, environmental friendly industry in Virginia is also a boost for our economy and significant step in creating energy independence from foreign oil interests". The total national electrical energy production using petroleum represents less than 3%. Wind energy will not replace conventional electrical power using fossil fuels.</p> <p>The proposed rule does not require the developer to secure an Incidental Take Permit. This is problematic.</p> <p>The policy recommendations and voluntary guidelines from the Wind Turbine Guidelines Federal Advisory Committee should be considered.</p> <p>The proposed rulemaking fails to create necessary protections to Virginia's natural resources affected by the construction of industrial wind turbine projects. The proposed rules offer a misleading description of small wind project. The rules inadequately address issues related to historical, scenic, cultural and wildlife resources. The rule does not require consultation with federal agencies, including the US Fish and Wildlife Service and the National Park Service. The rule ignores local governments and community organizations. The rule contains no protective provisions for human health and safety. The rule omits the process of deconstruction and removal should the project become non-operational.</p> <p>Industrial wind in the mountains is not responsible wind development and should not be encouraged with a PBR which does not meaningfully evaluate environmental impacts.</p> <p>Wind energy is intermittent and cannot be controlled as a consistent energy source.</p> <p>Opposed to Wind Project proposed on Bent Mountain, VA.</p> <p>The "Agency Comments" submitted by DEQ are based on the false premise that industrial scale wind turbine facilities are environmentally friendly, that they help reduce the use of foreign oil, and that they will cause a reduction in the use of fossil fuels and emission of greenhouse gases. The evidence is overwhelming that industrial scale wind turbines are not environmentally</p>	<p>Virginia law does not provide for an Incidental Take Permit. The 2009 statute does not provide for an incidental take permit, and it is beyond the authority of a state agency to require a federal (USFWS) Incidental Take Permit. Federal agency requirements operate separately from this proposed state regulation.</p>
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	<p>friendly. Specifically, hundreds of thousands of bats are being slaughtered annually by industrial scale wind turbines. Migratory songbirds are being killed in unprecedented numbers by industrial scale wind turbines. Also, deforestation of mountain ridges removes the roosting trees for bats and creates habitat fragmentation such that interior forest birds cannot survive. Wind is volatile and therefore, unreliable.</p> <p>This PBR does not recognize that each project area is an individual, unique situation. The most the PBR can provide are standards addressing procedures to assess individual sites. The PBR cannot provide an adequate means for assessment.</p>	
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Commenters	Comments by Category	Agency response
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Miller, Lucile</p> <p>O'Hara, Frank J. - Allegheny Front Alliance</p> <p>Rovner, Nicole - TNC</p> <p>Scott, Michael T. - Bent Mountain, VA</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Mitigation/Monitoring:</p> <p>The Department is wholly unqualified to review, approve, enforce, and modify wildlife impact mitigation plans. The implementation of the mitigation procedures is ill-defined and unworkable.</p> <p>Before the PBR becomes law, the Virginia Department of Game and Inland Fisheries (and other agencies with needed experience and knowledge) develop protocols and standards for surveys, data collection, and analysis and that these protocols and standards are added to the language in the PBR. If necessary there will be two sets of protocols, one for ridgeline development and one for onshore coastal development.</p> <p>Monitoring plans (post-construction) should include a robust adaptive management component that describes the studies to be conducted, anticipated outcomes (hypothesis to be tested) and subsequent series of resources addressing those outcomes. Monitoring should be conducted to determine if the selected responses actually result in a reduction of fatalities.</p> <p>We suggest that language be inserted to clarify that what is due after the first year of monitoring (post-construction monitoring) is a revision of the original mitigation plan, and that it must be adequate to address what was learned in monitoring. We proposed adding an annual reporting requirement that includes expenditures on curtailment and the results of ongoing monitoring. We suggest language be inserted to clarify the type of mitigation that would be acceptable in a situation where avoidance and minimization measures prove to be ineffective.</p> <p>Mitigation Plans - What is the threshold of predicted environmental impact that would result in permit denial or project modification? Can an applicant's permit be granted in cases where significant adverse impact to state-listed T&E species cannot be avoided? Why have raptors, migratory birds, and other wildlife use been left out of DEQ required curtailment? What criteria were used to set the standard of "120 hours of curtailment per year per turbine, averaged?"</p> <p>There are no reliable studies of the effect of industrial wind turbine facilities on wildlife other than birds and bats. We strongly recommend that the department establish studies of the effect on wildlife and domestic animals as well as requirements for mitigation of the effect of industrial wind turbine facilities on</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>The General Assembly decided that DEQ should be the agency to assess whether the application meets the applicable permit by rule regulations and, after consulting with other agencies in the Secretariat of Natural Resources, determine whether to approve or not. These other agencies have subject-matter expertise concerning the issues encompassed by the statute. In addition, experts from all stakeholder groups served on the Regulatory Advisory Panel and resolved all but three sub-issues by consensus. The permit by rule itself therefore sets forth, in large part, the standards by which mitigation plans should be approved, enforced, etc.</p> <p>Monitoring and mitigation were discussed at length by members of the Regulatory Advisory Panel and were resolved through consensus. In addition to the provisions contained in the proposed regulation, the RAP also recommended specific procedures and protocols for surveys and other analyses. These recommendations will appear in DEQ Guidance, which will be drafted after the regulation becomes final. Copies of the RAP's recommended Guidance provisions are available on request.</p>

	<p>wildlife and domestic animals.</p> <p>Mitigation plans: Is there a threshold of potential environmental harm that will result in permit denial or substantial project modification? Can wind energy projects be permitted in cases where significant adverse impacts to state-listed T&E wildlife cannot be avoided?</p> <p>Why hasn't the DEQ required curtailment or turbine shutdown to protect raptors and migratory birds? Will the DEQ review and approve monitoring plans, and what criteria, including search methods, search frequency, search area, and searcher qualifications, will the DEQ consider in approving monitoring plans? Will DEQ require submission of all monitoring data, and will this data be made available to the public? Will DEQ or other natural resource management agencies have unrestricted access to project sites for inspection and oversight of monitoring programs? Will project operators and contractors be required to immediately notify DEQ if state-listed T&E or federally-listed endangered species are harmed or killed at wind project sites?</p>	<p>The department – via consensus recommendations of both the original Wind RAP and the Offshore/Coastal Wind RAP – did develop a PBR that looks at both ridgeline and coastal development.</p> <p>Proposed provisions in 9VAC15-40-60 (especially subsections B 4, 5, & 6) prescribe an adaptive management approach, which was developed and resolved by consensus of the Regulatory Advisory Panel. The RAP also developed provisions for DEQ Guidance that will further delineate how the applicant should perform these functions.</p> <p>Amendments have been made to clarify these points about post-construction monitoring.</p> <p>Mitigation plans -- Determinations will be made on these issues pursuant to the provisions of the regulation. The mitigation provisions were developed through consensus of members of the Regulatory Advisory Panel.</p> <p>Issues resolved through consensus of the members of the RAP.</p> <p>Pursuant to the statute, DEQ will make approval decisions (including approval of mitigation plans) pursuant to the final version of the PBR regulation, after consulting with sister agencies, including DGIF, which has authority over T&E issues.</p>
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Commenters	Comments by Category	Agency response
<p>Dodds, Pam - Montrose, WV</p> <p>Rovner, Nicole - TNC</p>	<p>Mitigation Triggers:</p> <p>Given that DEQ limited the concern “trigger” to threatened and endangered species, stating it would be too costly to industry to establish safety for other vertebrates, the DEQ should have a study conducted or draw upon EPA data to have a realistic interpretation of the impact at the sub-watershed and larger watershed levels.</p> <p>Given the breadth of the plain meaning of the term "wildlife" and the statutory definitions thereof, as well as the broad way the term is used in another part of the regulation, we submit that limiting the application of that trigger (for mitigation) to a very small subset of wildlife - bats and threatened and endangered species - represents the use of an unacceptable narrow definition.</p> <p>We urge DEQ to reconsider its tentative decision to exclude Tier 1 & 2 Species of Greatest Conservation Need (SGCN) from the mitigation requirements.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>The issue of appropriate wildlife “triggers” for mandatory mitigation plans was addressed during discussions of the Regulatory Advisory Panel. With the exception of Species of Greatest Conservation Need Tiers 1 & 2 Vertebrates (the only additional “trigger” put on the table by RAP members at the RAP’s closing meeting; please see explanation of discussions in the Town Hall - 02 document), the issue was resolved through consensus of the members of the RAP.</p> <p>The department continued to evaluate appropriate wildlife mitigation “triggers” and related issues, especially since members of the Regulatory Advisory Panel did not reach consensus concerning inclusion of SGCN Tier 1 & 2 vertebrates. Comments submitted by members of the public and further discussions by the RAP were taken into account in considering appropriate mitigation triggers. <u>See</u> discussion of the SGCN issue in the “Changes Made” section of this document and in TH02.</p>

Commenters	Comments by Category	Agency response
<p>Carr, David - Southern Environmental Law Center</p> <p>Dodds, Pam - Montrose, WV</p> <p>Foster, Dan - Monterey, VA</p> <p>Karr, Sue - Bent Mountain, VA</p> <p>Scott, Jim - Bent Mountain, VA ("Virginia" on Town Hall)</p> <p>Scott, Michael T. - Bent Mountain, VA</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Natural Resource Impacts:</p> <p>The regulation needs to make clear that DEQ may find significant adverse impacts in other circumstances in addition to bats and state-listed T&E wildlife, i.e. raptors, breeding birds and non-avian resources. These "other wildlife" should be in the consideration for significant adverse impacts analysis and mitigation where significant adverse impacts are found. The regulations must make clear that DEQ can find significant adverse impacts based on its review of the analysis developed in situations other than the two listed in the proposed regulations (bats and state-listed T&E species). The requirement that the combined cost of mitigation and post-construction monitoring shall not exceed 120 hours of curtailment per year per turbine seems arbitrarily low and may fail to protect certain bat species. If there is to be a limit, it should be higher and fully supported by meteorological data and credible sources.</p> <p>An ecologic unit or watershed-based approach is necessary to adequately determine the impact on natural heritage species and natural resources as a result of destruction caused by construction of industrial scale wind turbine projects.</p> <p>Proposed Regulation 9VAC 15-40 is not adequate to protect Virginia's natural resources that may be affected by the construction and operation of small renewable energy projects.</p> <p>The kinds of analysis for site specific data collection fail to provide clear language, standards, and conditions that are necessary to protect natural resources.</p> <p>The proposed regulation does not provide a means of achieving the DEQ stated mission of protecting the environment.</p> <p>In the section dealing with analysis of beneficial and adverse impacts on natural resources, the analysis of wildlife species and habitats known to occur on the site as well as within (2) miles of the boundary of a site should both be required not one or the other. Why are the "mountaintops of Virginia" not included in the analyses of other resources?</p> <p>How reliable and complete are the current map-documented information concerning the presence of T&E and SGCN species? Will DEQ accept the</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Issues raised were previously addressed during discussions by the Regulatory Advisory Panel. With the exception of whether Tiers 1 & 2 Species of Greatest Conservation Need (SGCN) vertebrates should constitute a trigger for mandatory mitigation, the members of the Regulatory Advisory Panel resolved these issues through consensus. The department's decision not to include SGCN as a trigger for mitigation is explained in the Town Hall Document -02 submitted with the proposed regulation, and in the "changes made" section of this document.</p> <p>The Regulatory Advisory Panel recommended specific procedures to be utilized for the surveys and analyses prescribed in the proposed regulation. Not all of this "how-to" information was deemed by the RAP to be appropriate for the regulation itself. (For instance, some provisions were "suggested" rather than mandatory, some procedures are subject to change as technology advances, etc.) This information will appear in DEQ Guidance, which will be completed after the regulation becomes final. Copies of the RAP's suggested Guidance provisions are available on request.</p> <p>It was the intent of the RAP and of the department to require the applicant to survey the specified resources both on the site and within the larger area around the site.</p>

	<p>applicant's determination that no T&E and SGCN species are present without site specific data collection? It appears that only T&E and SGCN species warrant site-specific data collection, so how was it determined that other wildlife species do not warrant the site-specific data collection? Why is the applicant's Wildlife Report allowed to consist of a summary of the relevant findings of the desktop and field surveys? How can the actual data, records of analysis and consultant reports be reviewed and verified by the DEQ, other agencies or the public if no specific language exists in the proposed regulations for submitting or retention of the actual data? The proposed regulations require raptor migration surveys and acoustic surveys for the presence of bats, but there are no specific protocols or standards for conducting these surveys. How can DEQ validate the above noted surveys without defined protocols for conducting these surveys being specified in the regulations? How was it determined that two miles is a sufficient distance for a survey of natural heritage resources?</p> <p>How reliable and complete is the currently available map-documented information concerning the presence of T&E and SGCN species? If there are gaps or uncertainties in mapped T&E and SGCN wildlife species data for the project area, will the DEQ accept an applicant's determination that there is no evidence for the presence of T&E and SGCN species? Given that the legislation does not appear to impose any such limitation, how was it determined that only T&E and SGCN wildlife species warrant site-specific data collection?</p> <p>The proposed regulations require raptor migration surveys and acoustic surveys for the presence of bats. However, the proposed regulations do not specify protocols or standards for the conduct of these surveys. Likewise no protocols for the analysis of map-documented information on wildlife use, breeding bird surveys, habitat surveys, or follow-up mist-netting or harp-trapping surveys for bats are specified. What protocols or standards does the DEQ intend to require, and if it is the intent of the legislation to create a PBR process that clearly establishes permit review requirements "upfront", is it not necessary to include explicit language in the regulations concerning protocols and standards required for all surveys, data collection, and analysis? If the public is to be provided an actual opportunity to make informed and meaningful comments on the proposed PBR regulations, doesn't the public need an opportunity to examine and comment on the protocols and standards for required surveys, data collection, and analysis? A "Wildlife Report" summarizing the relevant findings of the desktop and field surveys is required.</p>	<p>Comments received reflect that the proposed language does not succeed in conveying this intent. (Comments from other parties may be alluding to this same problem.) The department has amended the proposed language to convey the requirements more clearly.</p> <p>As indicated in the proposed regulation, data concerning T&E and SGCN species come from DGIF, which is the state agency with authority over these issues and the data concerning them.</p> <p>The issues raised in comments related to natural resource impacts were addressed and resolved through consensus of the members of the Regulatory Advisory Panel, including when and how site-specific data collection (i.e., field studies) will be required. Further details were recommended by the RAP for inclusion in DEQ Guidance. The Guidance document will be completed after the regulation becomes final. Copies of the RAP's consensus Guidance recommendations are available by request.</p> <p>The department intends to implement the consensus recommendations of the RAP. The department has made a number of changes based on public comments. The department also plans to provide further clarifications in DEQ Guidance.</p> <p>Specific protocols were recommended by the RAP and will be included in DEQ Guidance.</p> <p>Protocols and other "how to" details were developed by consensus of the RAP. The</p>
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	<p>The draft regulations do not specify that the applicant shall provide, or even retain, actual data, records of analysis, and consultant or contractor reports. Without that information there is no opportunity for DEQ, other resource management agencies or the public to examine the data and verify the integrity of the analysis. Does DEQ plan to require access to all wildlife data and analysis results? Does DEQ plan to make all wildlife data and analysis results available to other resource management agencies and the public? The draft regulations do not address potential impacts to aquatic resources.</p>	<p>department intends to include these recommendations in DEQ Guidance, which will be written after the regulation becomes final. Copies of the RAP's suggested Guidance provisions are available on request.</p> <p>The RAP resolved by consensus which of their recommendations should appear in the regulation and which in Guidance.</p> <p>Guidance drafting is not subject to Administrative Process Act procedures; however, the department intends to seek public input, as appropriate, when it drafts Guidance for these regulations.</p> <p>Requirements for the Wildlife Report have been amended to require actual data and supporting documents, rather than just a summary. This change carries over into all relevant provisions.</p> <p>The department continued to consider processes for data submission/evaluation/retention/public availability and related issues, and made various changes to clarify certain requirements in the regulation. The department intends to clarify issues further in Guidance.</p> <p>As explained in the Town Hall -02 document, aquatic resources were deferred for consideration by the Offshore/Coastal Wind RAP. The Offshore RAP completed its work, its consensus recommendations were submitted in this rulemaking as public comment on the original Wind PBR, and they now appear as provisions in the final</p>
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		<p>proposed Wind PBR.</p> <p>DGIF told the RAP that its information regarding T&E and SGCN is accurate. The applicant will, as we understand it, be submitting information taken directly from the databases of DGIF and/or DCR.</p> <p>As stated previously, protocols for performing the various requirements of the PBR will be spelled out in Guidance. Much of that information has already been developed in the form of RAP recommendations, which staff anticipates relying on heavily.</p>
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Commenters	Comments by Category	Agency response
<p>Wampler, Carol - Offshore RAP</p>	<p>Offshore/Coastal Concerns:</p> <p>Propose insertion of the consensus-based recommendations from the Offshore/Coastal Wind Regulatory Advisory Panel into the proposed Small Renewable Energy Projects (Wind) Permit by Rule.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>These comments constitute the consensus recommendations of members of the Offshore/Coastal Wind Regulatory Advisory Panel (Offshore RAP). They are submitted on behalf of the Offshore RAP by DEQ staff. The Offshore RAP recommends that their suggested provisions become amendments to the originally-proposed Wind PBR. Rationale for these recommendations appears in meeting notes for the meetings of the Offshore RAP.</p>
<p>Harless, Marion - West Virginia</p> <p>O'Hara, Frank J. - Allegheny Front Alliance</p> <p>Rovner, Nicole - TNC</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p> <p>Thomas, Rick - Timmons Group</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Process:</p> <p>While the rule covers the multitude of variables that are currently being mentioned regarding "development" it seems impossible that the agencies and the public can analyze developers' proposals in 90 days.</p> <p>The costs to apply for a wind permit are inadequate. The Virginia filing fee is inadequate. The proposed rule making should not be about "reduced risk, time costs, and administrative costs for small wind energy firms. An inadequate filing fee constrains the ability of DEQ to conduct an effective study review. The proposed rule making should require an effective (not efficient) management process. The development and formal review of project study proposals should include estimated expenses.</p> <p>Because the topography of the site may change during the project construction the site plan requirements should be revised to include topography of the site both before and after construction of the proposed project instead of just showing "existing topography".</p> <p>Language should be added to clarify that the owner or operator must comply with all of the steps laid out in 9VAC15-40-90.</p> <p>The notice of intent should be filed at least thirty days prior to the date that it intends to file its application. There should be a requirement to furnish a</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>The Administrative Process Act, which governs all of DEQ's permits, requires the department to issue a decision within 90 days after a complete application is submitted.</p> <p>The fees were suggested by DEQ based on many years of experience in administering and enforcing permit programs. The fee issue was resolved through consensus of the members of the Regulatory Advisory Panel.</p> <p>The department intends to explain details about the submission and consideration of project applications in DEQ Guidance. The RAP recommended a number of technical</p>

	<p>project summary and generating facility overview. A justification of need statement should be required. There should be a requirement for the submittal of a description of the generating facility. There should be a requirement for filing of economic and financial data and information with the department. There should be a requirement to submit estimates of the effect of the project on local and the Commonwealth's economy. The owner or operator should be required to describe the impact of the proposed facility on regional development.</p> <p>I recognize that there has been a considerable and laudable effort throughout the development of this regulation to balance the multiple interests associated with affected parties of this regulation and I commend the Department for providing the Commonwealth with a well balanced regulation that provides both significant protection of natural and cultural resources of the Commonwealth and a degree of certainty for planning and constructing needed renewable energy facilities. I believe that both wind energy developers as well as state regulatory personnel within DEQ and participating agencies included DGIF; DCR; DHR would benefit through the development of two Memoranda of Understanding further clarifying the documentation requirements, review procedures and timelines, and technical criteria associated with adverse effect determinations and mitigation requirements (one Memoranda for natural resource issues and one memoranda for cultural resource issues). Regulatory guidance focused on both natural and cultural resource impact determinations, review agency responsibilities and timelines and application documentation requirements will assist in providing the clarity and regulatory certainty needed to foster renewable energy development in the Commonwealth.</p> <p>Will project operators and contractors be required to immediately notify DEQ if state-listed T&E or federally-listed endangered species are harmed or killed at wind project sites?</p>	<p>provisions for inclusion in DEQ Guidance, and the department intends to utilize those recommendations. Additional provisions, including provisions addressing the commenter's suggestions, have been made. The department will also consider the commenter's suggestion of inter-agency memoranda of understanding as another avenue for clarifying regulatory processes.</p> <p>Based on informal legal guidance from the OAG, the department believes that DGIF's authority over T&E species is not altered by the PBR program, and that the owner or operator will be required to report to DGIF, just as he does now. DEQ will regulate wildlife mitigation plans and the owner/operator's post-construction monitoring, as required by the statute and as recommended by consensus of the RAP</p>
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Commenters	Comments by Category	Agency response
Belinsky, Tammy; Harold McCall; and Carol White	<p>Project Impacts:</p> <p>Segmentation of projects and cumulative impacts of multiple projects need to be addressed in the rule.</p>	<p>Comments accepted and taken into consideration by staff.</p>
Laska, Richard M - Laska's Grove	<p>The cumulative impacts of multiple sites need to be considered and addressed by the PBR. Prior to the approval of any single permit in a particular airshed, an analysis of potential cumulative impacts upon such concerns as natural, economic, historic, aesthetic, environmental and endangered species resources in the vicinity of that airshed is essential. Without such prior analysis, all of those concerns are rendered without value by the first of what may be multiple permits.</p>	<p>Project impacts were addressed during discussions of the Regulatory Advisory Panel, to the extent of DEQ's statutory authority.</p>
Miller, Lucile		
O'Hara, Frank J. - Allegheny Front Alliance	<p>Given well-known and acknowledged environmental/wildlife impacts of industrial scale wind projects on eastern ridges, there is a clear path to lessening those impacts. The proposed permit by rule (PBR) acknowledges the impacts but the monitoring and mitigation called for in the proposed PBR will do little to advance objective, scientific decision-making regarding the lessening of environmental impacts.</p>	<p>Where the commenters raise issues concerning land use, property values, health problems, noise, and the like – Members of the Regulatory Advisory Panel discussed these and related issues. Consistent with legal guidance from the OAG, it was concluded that they do not fall within DEQ's statutory authority over "natural resources" pursuant to the "small renewable energy projects" legislation being implemented by the proposed regulation. Rather, these issues were deemed to fall under the purview of local governments, just as they traditionally have.</p>
Scott, Jim - Bent Mountain, VA ("Virginia" on Town Hall)		
Scott, Michael T. - Bent Mountain, VA	<p>AFA believes there are serious environmental issues the industrial wind corporations do not address. Regulatory action is essential to protect the health, safety, and welfare of citizens. Effective regulation is critical to protect and conserve unique biological, ecological, geological, geographical, cultural and historic resources. The plan fails to address long range, direct and indirect impacts on environmental quality and cultural resources.</p>	
Thomas, Larry V. - Allegheny Highlands Alliance	<p>The PBR only evaluates a narrow select set of environmental concerns, and therefore, the scope of the impact isn't even being evaluated.</p>	
Webb, Rick - Virginia Wind - Monterey, VA	<p>The "use and value" of private property of a community impacted by these projects will experience negative "Effects". The 'positive' impact noted in the justification will be outweighed by the negative impact to communities, especially adjacent properties. The adjoining property values suffer the most significant decline due to the health problems related to the noise "effects", which can reach over a mile in the mountains. The "land use" of adjacent property values is also diminished.</p>	<p>Impacts of proposed projects were discussed and evaluated by members of the Regulatory Advisory Panel as, and to the extent authorized by the statute. Please note that impacts to surface waters and groundwater will be addressed, where applicable, pursuant to the statute and proposed regulation (9VAC15-40-30 A 12), regarding "all necessary environmental permits." The proposed permit by rule does not abrogate any other permit requirements, so water permits will still need to be obtained if they are relevant.</p>
	<p>The proposed regulations contain insufficient environmental review, mitigation</p>	

	<p>requirements and restricted public participation for projects of this magnitude (18@2 mw, 500 foot wind turbines). The proposed regulations do not include conditions and standards necessary to protect the Commonwealth's natural resources.</p> <p>There are large negative impacts on the value of land bordering these projects that far surpass the small positive gains for the value of lands suitable for these projects.</p> <p>This PBR does not allow for consideration of cumulative impacts to mountain ridges, ecological regions, or watersheds. The PBR totally ignores consideration or protection of the numerous headwaters within the watersheds on the mountain ridges. The PBR has no reference to the impacts on groundwater as a result of mountain ridge deforestation required for construction of industrial-scale wind turbines. By not investigating proposed wind projects as individual projects, the PBR makes it difficult to comply with local comprehensive planning requirements and requirements for local certification.</p> <p>Any siting decisions should include "attachment-to-place" considerations (interrelations of human societies and cultures with the physical and biotic elements of an area). There should be a requirement to consider and identify the cultural impacts of a proposed project (i.e., impacts on local landmarks and recreation areas). There should be a requirement to evaluate the potential for adverse impacts in an adjoining jurisdiction when a facility is sited in another jurisdiction or state. Cross-border impacts on landmarks, recreation areas, and individuals cannot be ignored.</p> <p>Cumulative Impacts: Does DEQ recognize that wind energy development in western Virginia will involve multiple separate projects, and how does DEQ justify proposal review and mitigation requirements for wind projects as if the effects of individual projects will occur in isolation from the effects of other projects?</p>	<p>The proposed regulation is a "permit by rule" -- as opposed to an individual permit -- because a "permit by rule" is required by the statute. Each individual project must meet the requirements of the permit by rule regulation, so information about individual projects is both "investigated" and reported by the applicant, as the proposed regulation sets forth. Local government officials, like all members of the public, will have access to the information required by the permit by rule regulation. Local governments will certify whether the proposed project complies with the local governments' own land use requirements.</p> <p>Impacts on recreation areas and on individuals were discussed and resolved by consensus of members of the RAP; mitigation for "wildlife" and "historic resources" was recommended; mitigation for other resources was not recommended as not being within the department's statutory authority. The proposed provisions on historic resource protection reflect the consensus recommendations of the RAP regarding landmarks that fall within the definition of "historic resources"; this definition emerged from input from DHR, the state's lead agency on historic resources.</p>
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Commenters	Comments by Category	Agency response
<p>Dodds, Pam - Montrose, WV</p> <p>Miller, Lucile</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p>	<p>Public Information:</p> <p>The evidence indicates that there is no meaningful electricity being produced by the wind turbines and that the burden of cost is on the taxpayer and electric ratepayer. The “Permit by Rule” should specify that the financial information must be public information.</p> <p>Request that the PBR include language stating that all surveys, data and analysis pertaining to natural resources of public interest be made available to the public at least 90 days before the PBR is issued.</p> <p>There should be a requirement for the operator to provide information on the proposed facility to the public and on any mechanism for providing liability compensation for damages.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>All data/documents submitted to DEQ with relation to the wind PBR are public documents.</p> <p>Public disclosures and public participation are defined by statute and addressed in the proposed regulation as recommended by consensus of the RAP. Liability and compensation for damages appear to be issues that might flow from enforcement actions. The enforcement provisions of the statute are extensive and, by consensus recommendation of the RAP, are incorporated by reference into the proposed regulation.</p>
<p>Belinsky, Tammy; Harold McCall; and Carol White</p> <p>Carr, David - Southern Environmental Law Center</p> <p>Dodds, Pam - Montrose, WV</p> <p>Dodds, Jr. Arthur W. - Laurel Mountain Preservation Association, Inc.</p> <p>Firor, Eve - Friends of</p>	<p>Public Participation:</p> <p>Any proposed amendments to mitigation plans must be subject to real public participation and the appellate review process.</p> <p>Comments made during the 30-day comment period should be submitted to the agency. The applicant can then respond to the comments that the agency receives. The 3--Day comment period should run from the day of the public meeting. The applicant should be required to submit the notice of intent to the Virginia Register at the earliest possible time, and prior to the notice of the public comment period and public meeting.</p> <p>The DEQ, not the wind company owner or operator, must be responsible for obtaining public comments on all proposed industrial scale wind projects and provide an avenue for submittal and review of expert testimony.</p> <p>The provision in the PBR for there to be only a 30-day comment period managed and summarized by the wind construction company is totally deficient and is an insult to the citizens of Virginia. The SCC allowed months for stakeholders to evaluate the proposed projects. It is imperative that DEQ manage cases in a manner similar to that of the SCC to maintain the rule of evidence. It is critical that wind companies and corporations must not be allowed to control "due process".</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Public participation was addressed during discussions of the Regulatory Advisory Panel, to the extent of DEQ’s statutory authority. Review and appeals are governed by the Administrative Process Act.</p> <p>Issues raised were previously resolved through consensus of the members of the Regulatory Advisory Panel. Timing of the notice of intent has been addressed further in regulatory amendments and will also be considered for DEQ Guidance.</p> <p>Submissions to DEQ pursuant to this regulation are public documents and subject to the Freedom of Information Act. Public participation issues were resolved through consensus of the members of the RAP and are reflected primarily in proposed 9VAC15-</p>

<p>Beautiful Pendleton County</p> <p>Miller, Lucile</p> <p>Scott, Michael T. - Bent Mountain, VA</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Under these presently written PBR requirements there would be little or no input from the public who are the most significantly affected.</p> <p>Request that the PBR include language that expands the audience for the public hearing and public comments to include representatives from Department of Environmental Quality and that a forum be made available for complaints deemed to be of valid concern.</p> <p>Will all documentation included in the public participation portion of the regulations be made available to the public? Will the public be provided an opportunity to comment on the final documentation received by DEQ including an opportunity to comment on any modifications made after the prescribed public comment period? What structure or procedural rules will be followed in conducting the public meeting?</p> <p>This "permit-by-rule" is unconstitutional because there is no avenue for due process of law whereby the public has an avenue to ensure that public comments are part of the process. There is no avenue by which the public can provide input such as currently allowed by having cases brought before the SCC.</p> <p>Will the documentation related to the public participation requirements to be made available to the public for review during the comment period be accessible during business hours throughout the comment period or only during limited times scheduled by the applicant? Will the public be provided an opportunity to copy the documentation made available to the public for review during the comment period? Will the documentation made available to the public for review during the comment period include the applicant's Wildlife Report and all related data and analysis, the applicant's mitigation and monitoring plans, and the applicant's analysis of the potential impacts of the project's operation on the attainment of national ambient air quality standards? What structure or procedural rules will be followed in the conduct of the public meeting? Will the written comments submitted by the public to the applicant be provided to DEQ and will the public have access to the applicant's summary of and responses to comments? Will the public be provided an opportunity to comment on the final documentation considered by DEQ in its review of the application, including an opportunity to comment on modifications made after the prescribed public comment period?</p>	<p>40-90. As stated in paragraph D of this section, the public will be afforded 30 days in which to comment "on the technical and the regulatory aspects of the proposal." The applicant is required by proposed paragraph A 5 to make available to the public "copies of the documentation to be submitted to the department in support of the permit by rule application"; that is, the documentation stipulated in the other sections of the proposed regulation, including the sections dealing with Analysis, Determination of Likely Significant Impact, and Mitigation. As for the public meeting, the applicant will be expected to follow the procedures required for public meetings set forth in DEQ Guidance, which will be completed after this regulation becomes final. In response to this comment and similar comments from other commenters, the department continued to evaluate the proposed public participation requirements and made a number of changes.</p> <p>Due process for the permit by rule and all of DEQ's other permits is provided pursuant to the Administrative Process Act. See, for example, proposed provisions 9VAC15-40-30 B 4 and 9VAC15-40-90 E.</p> <p>In addition to the proposed regulatory provisions on public participation recommended by consensus of the RAP, the department will develop Guidance to address more specific details. It is anticipated that the commenter's questions would be among those that DEQ Guidance will address. We interpret the commenter's questions as being suggestions he would like for the department to adopt.</p>
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Commenters	Comments by Category	Agency response
<p>Miller, Lucile</p> <p>Webb, Rick - Virginia Wind - Monterey, VA</p>	<p>Right of Entry:</p> <p>Request that the final PBR include language that states that a wind energy facility permitted under the PBR must be accessible to state and federal agencies operating within the scope of their authority and that the owner/operator cannot require notification for site visits by authorized personnel.</p> <p>Will DEQ or other natural resource management agencies have unrestricted access to project sites for inspection and oversight of monitoring programs?</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Right of entry for these projects is set forth in the statute at Section 10.1-1197.10. The statutory provision is self-explanatory and self-effectuating, and the RAP did not recommend repeating the provision within the proposed regulation.</p>
<p>Carr, David - Southern Environmental Law Center</p> <p>JD - Roanoke, VA</p> <p>O'Hara, Frank J. - Allegheny Front Alliance</p> <p>Scott, Michael T. - Bent Mountain, VA</p> <p>Thomas, Larry V. - Allegheny Highlands Alliance</p>	<p>Scenic Resource Impacts:</p> <p>The regulation should require a view shed analysis for the following trail resources: national historic trails, national recreation trails, and the Great Eastern Trail.</p> <p>There are negative scenic resource impacts. The negative impacts on views, which are fundamental to Virginia tourism, will be forever changed. DEQ must expose each project to a more reasonable assessment, not the narrow overview as proposed by the PBR. The distance of scenic resource impacts must be expanded. The loss of property values associated with view should also be determined as a component of each PBR application. This assessment must be available for public comment. The regulation should require applicants to determine impacts to the Blue Ridge Parkway and all other scenic assets at a range that reflects the view - well over 5 miles in the mountains.</p> <p>This view shed analysis does not consider county, public property resources, such as The Nature Conservancy (TNC) lands and historical cultural landscapes. There is no description as to method of analysis required. View shed analysis evaluation should not be subjective but should be developed using a set criteria scored standard, developed at the community level. View shed analysis should reflect the project site during the season of winter, spring, summer and fall.</p> <p>How was it determined that the area plus 5 miles is a sufficient distance for a view shed analysis? Why are only specific scenic resources included in the viewshed analysis? Why would the viewshed of residences not be considered? There should be a requirement for a view shed analysis both at the preconstruction and construction phases.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Issues relating to scenic resources were previously resolved through consensus of the members of the Regulatory Advisory Panel, which included a representative from the Department of Conservation & Recreation whose specialty includes scenic resources.</p> <p>Issues discussed and resolved through consensus of the members of the RAP. Note regarding viewsheds from residences: Consistent with OAG legal advice, the RAP concluded that the statute requires mitigation for significant impacts to historic-resource viewsheds, and not to others.</p> <p>Specific requirements for historic-resource impacts, including viewshed impacts, will be addressed in mitigation plans. In appropriate situations, the commenter's suggestion regarding construction-phase viewshed analysis may be utilized.</p>

Commenters	Comments by Category	Agency response
<p>Thomas, Larry V. - Allegheny Highlands Alliance</p>	<p>Staffing:</p> <p>This PBR does not address the significant increase in personnel required for inspection or enforcement. The PBR does not address the personnel training costs associated with the additional responsibilities required of personnel in analyzing data presented by wind companies or inspecting all aspects of the wind projects.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>DEQ considered relevant costs when suggesting a fee amount and the members of the RAP resolved the issue by consensus.</p>
<p>Dodds, Pam - Montrose, WV</p> <p>Dodds, Jr. Arthur W. - Laurel Mountain Preservation Association, Inc.</p> <p>Foster, Dan - Monterey, VA</p> <p>Karr, Sue - Bent Mountain, VA</p> <p>O'Hara, Frank J. - Alleghany Front Alliance</p> <p>Rovner, Nicole - TNC</p>	<p>Wind Power Project – Categories</p> <p>The basis of megawatt nameplate capacity for categorizing wind projects is flawed and demonstrates a lack of understanding concerning wind power. Residential wind turbines are designed to produce 100 kilowatts, or less, of electricity. These wind turbines are usually less than 30 feet tall, and the excess electricity produced can be stored in batteries for later use. The categories should be based on a more realistic division of the nameplate capacity of individual wind turbines used for different purposes: those at the residential level as distinguished from industrial scale wind turbines.</p> <p>The PBR specifies only two categories of wind projects: those less than 5 MW and those equal to or greater than 5 MW. The smaller residential wind turbines mostly produce 100 kilowatts or less, are less than 30 feet tall and can store excess electricity in batteries. The larger community and industrial wind turbines have a nameplate capacity of at least 1.5 megawatts, are greater than 450 feet tall and cannot store excess electricity, that they have to have a connection to the grid and ramp up and down capabilities through either coal fired or gas-fired generators.</p> <p>One insufficient part of the proposed regulation is that projects above 500 kilowatts and below 5 MW are not required to make an analysis of impacts to natural resources. The rated power capacity of a project is a poor measurement and no determination of the projects potential adverse impact to bat hibernaculum, threatened and endangered wildlife or historic resources. And the legislation does not ask for or require the exemption of analysis of adverse impacts to natural resources for projects below 5MW and above 500 kilowatts as the regulation has granted. I ask that the proposed regulation be rewritten to comply with the legislation that ordered it and to comply with the legislation intended to protect our natural resources.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Pursuant to proposed section 9VAC15-40-130, projects of 500 kW and less are totally exempt from permit by rule requirements, thereby distinguishing residential-scale projects from larger projects. In the same section, limited notification and other minimal requirements are proposed for community-scale projects (approximately 500 kW to 5 MW). The full permit by rule requirements are proposed for industrial-scale projects over 5 MW, up to the statute's specified limit of 100 MW. Comment acknowledged and taken into consideration.</p> <p>Please see proposed 9VAC15-40-130, which provides that projects smaller than 500 kW are not required to meet PBR requirements.</p> <p>The definition of "small" is provided in the statute, and the statute can only be changed by the General Assembly, not by regulatory action.</p> <p>Reduced requirements for projects from 500 kW to 5 MW were discussed at length by members of the Regulatory Advisory Panel. This issue and SGCN were the only issues</p>

	<p>The “small wind energy project” is defined in this legislation as any project less than 100 MW rated capacity but common sense tells us that a group of 2.5 MW turbines, say 18, marching across a Virginia ridgeline, producing 45 MW rated capacity and standing over 400 ft. is <u>not a small project</u>.</p> <p>The first major issue is rule making for projects over 5 MW rated capacity. The term "small renewable energy project" is inappropriate, misleading and inadequately describes reality. The term "industrial wind turbine generation project" represents a more truthful statement.</p> <p>We support DEQ's requiring projects with rated capacity greater than 500 kilowatts and less than 5 megawatts to submit a local land use certification to the department. Because there is no direct relationship between the size of the project and the potential impacts to wildlife, small projects should not be exempt from the requirements of the PBR. We recommend that in addition to the local land use certification that small projects be required to submit the same desktop surveys as other projects are required to submit.</p>	<p>on which the RAP did not reach consensus (the other “non-consensus” issue -- coastal avian field studies -- being subsequently resolved through consensus by members of the Offshore/Coastal Wind RAP; see public comments submitted on behalf of the Offshore/Coastal RAP in this regulatory action). The department continued to give special attention to evaluating the issues on which the RAP did not reach consensus. Changes, particularly to the provisions governing community-scale projects were made in the draft regulation so that the public could comment on the proposal. In addition, the Offshore/Coastal Wind RAP held an extra meeting so that they could consider changes proposed to the original Wind PBR. All of this input was considered in framing the final proposed requirements for community-scale projects and other issues.</p>
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Public comments - Informal Comment Period - Sept. 4 through Oct. 5, 2010

An additional informal 30-Day Comment Period was held beginning on September 4th and ending on October 5th to seek comments on the preliminary revisions to the draft Wind Permit by Rule. These revisions were made based on the first round of public comments and the incorporation of substantive revisions based on consensus recommendations of the Offshore/Coastal Regulatory Advisory Panel to address offshore wind energy issues that were not addressed by the Original Wind RAP.

Commenters	Comments by Category	Agency response
<p>DGIF - Ray Fernald</p>	<p>Analysis of the beneficial and adverse impacts on natural resources - 9VAC15-40-40:</p> <p>Section 9VAC15-40-40 A 1 related to desktop surveys and maps should be revised to correct the reference to DGIF's Virginia Fish and Wildlife Information Service web-based application and to make several grammatical corrections to clarify the requirements.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Proposed revisions incorporated into the regulation.</p>
<p>Dominion - Pamela F. Faggert</p> <p>Invenergy - Don Giecek</p>	<p>Coastal and Near Shore Provisions:</p> <p>The consensus-based recommendations and regulatory provisions of the Offshore RAP should be inserted as proposed into the consolidated regulation.</p> <p>The consensus-based recommendations and regulatory provisions from the OSW RAP should be inserted as proposed into the consolidated Small Renewable Energy Projects Wind PBR. This will conclude the outstanding consensus in the Wind RAP related to coastal and near shore wind development projects.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>All consensus-based recommendations and regulatory provisions of the Offshore RAP will be recommended for inclusion in the final version of the consolidated regulation.</p> <p>All consensus-based recommendations and regulatory provisions of the Offshore RAP will be recommended for inclusion in the final version of the consolidated regulation.</p>
<p>Rick Webb - Virginia Wind</p>	<p>Comment Period:</p> <p>Request that a new formal public comment period be provided once the DEQ has provided requested information and completed development of a complete set of proposed regulations to implement the PBR.</p>	<p>Comments accepted and taken into consideration by staff.</p>
<p>Dominion - Pamela F. Faggert</p> <p>The Nature Conservancy - Nicole M. Rovner; Judy K. Dunscomb</p> <p>Invenergy - Don Giecek</p>	<p>Consensus Recommendations:</p> <p>Support DEQ's proposal to implement the consensus recommendations of the Wind Energy Regulatory Advisory Panel and the Offshore/Coastal Wind Energy Regulatory Advisory Panel.</p> <p>We support the recommendations of the Coastal/Offshore Regulatory Advisory Panel (RAP) that are being incorporated into the regulation, and we support the revisions that DEQ is planning to make to the regulation in response to the public comment period that ended August 20.</p> <p>Invenergy supports DEQ's proposal to implement the consensus recommendations of the two RAPs.</p>	<p>Comments accepted and taken into consideration by staff.</p>

Commenters	Comments by Category	Agency response
<p>Dominion - Pamela F. Faggert</p>	<p>De Minimis Provisions:</p> <p>De Minimis projects such as those 5MW and smaller would bear an overly burdensome financial impediment if subjected to the full set of PBR provisions. Consistent with existing SCC regulations and practices, development projects that are 5MW or less should not be subjected to the full set of PBR requirements, or not required to obtain a PBR at all. If these projects are to be covered under the PBR, then the requisite provisions should be limited to a substantially reduced monitoring and mitigation plan. Dominion supports a 2-tier certification process by the applicant for a PBR.</p>	<p>Comments accepted and taken into consideration by staff.</p>
<p>The Nature Conservancy - Nicole M. Rovner; Judy K. Dunscomb</p>	<p>Any alternative considered for handling possible mitigation requirements for projects greater than 500 KW and less than or equal to 5 MW should require applicants to perform a desktop analysis for wildlife impacts. This information should be required to be provided to DEQ. This type of information requirement will increase our collective knowledge of the scope and scale of those potential impacts. Any alternative that does not require the applicant to provide the results of the desktop analysis to DEQ should not be included in the regulation.</p>	
<p>Invenergy - Don Giecek</p>	<p>De Minimis projects such as those 5 MW and smaller would bear an overly burdensome financial impediment if subjected to the full set of PBR provisions thus making such projects cost prohibitive. Consistent with existing SCC Order and practices, development projects that are 5 MW or less should not be subjected to the full set of PBR requirements, or not be required to obtain a PBR at all. We support a 2-tier certification process by the applicant for a PBR.</p>	<p><u>See</u> discussion of “de minimis” provisions in the “changes made” section of this document. As explained, staff attempted to work with the members of the Offshore RAP to find an acceptable provision that would require desktop analyses and an appropriate response to obvious wildlife or historic-resource problems revealed by these analyses. In the face of strong (and legitimate) objections from various stakeholder groups to every draft provision staff circulated, it was not possible to craft a “desktop” provision at this time.</p>

Commenters	Comments by Category	Agency response
<p>Tammy Belinsky; Harold McCall; Carol White</p>	<p>Economic Impact Analysis:</p> <p>The analysis performed on economic impact is inadequate because it fails to address the cost of enforcement of the licensing scheme.</p> <p>The economic impact analysis also has not addressed the impact of the regulation on the use and value of private property pursuant to Virginia Code § 2.2-4007.04.</p> <p>The economic analysis is wholly inadequate.</p> <p>The economic analysis must address the cost of the public improving public roads in these remote places to make the roads wide enough to haul huge machines up to the tops of our most remote mountains.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>DEQ staff considered the costs of both “administering and enforcing” the permit by rule when it suggested the proposed permit fees, as required by the statute. Issue resolved through consensus of members of the Regulatory Advisory Panel.</p>
<p>Tammy Belinsky; Harold McCall; Carol White</p> <p>Rick Webb - Virginia Wind</p>	<p>Guidance:</p> <p>Now we hear there are non-regulatory guidelines yet to be developed, Leaving some matters for later resolution defeats the stated purpose of the permit by rule.</p> <p>Contrary to the stated intent of the PBR legislation and the DEQ's stated intent in the notice of proposed regulations, the DEQ indicates that it intends to rely in a number of instances on guidance "to be developed" for implementation of the PBR rather than setting forth permit requirements "up front". This both defeats the intent of the legislation to provide certainty in the permitting process and denies the public a meaningful opportunity to comment on the rules that will ultimately be in effect.</p> <p>What guidance provisions were suggested by the RAP?</p>	<p>Comments accepted and taken into consideration by staff.</p> <p><u>See</u> discussion of Guidance in the “changes made” section of this document.</p>
<p>DGIF - Ray Fernald</p>	<p>Internet accessible resources - Internet applications - 9VAC15-40-120 C:</p> <p>Section 9VAC15-40-120 C 3 should be revised to correct the reference to the Virginia Fish and Wildlife Service internet resources.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>Proposed revisions incorporated into the regulation.</p>

<p>The Nature Conservancy - Nicole M. Rovner; Judy K. Dunscomb</p>	<p>dollar cap to an hour cap is straightforward: Hours per Turbine per year = \$ per Turbine per year/Projected price of energy in MWh/Average nameplate capacity of turbine/average capacity factor. A \$ per turbine per year limit of \$5,000 was previously agreed to by the RAP and we seek no change in this figure. Each of the other variables represents estimates of market conditions and technological capabilities, which will differ among individual projects and over time. Thus, there is no one perfect or correct figure to assign to any of the three variables. To arrive at 120 hours of curtailment per year per turbine averaged, we understand that DEQ utilized a projected price of energy of \$70/MWh (including federal production tax credits), an average nameplate capacity of 2 MW per turbine, and an average capacity factor of 30 percent. Based on our own research and knowledge of the wind energy industry, the first two figures appear to us to be reasonable. We do have concerns, however, that using a capacity factor of 30 percent is not the most accurate figure. We propose that a factor of 20 percent is a more reasonable figure to use than 30. Doing so yield an annual cap of 178.6 hours of curtailment per turbine averaged, which we have rounded up to 180 hours per DEQ's stated preference for using round figures in the regulation.</p>	<p>curtailment and post-construction monitoring. (Exception: In the first year of the project's operation, the developer's costs for curtailment and monitoring are not capped. The developer is expected to spend an appropriate amount to inform development of an effective mitigation plan, based on adaptive management. See meeting notes of RAP plenary and subcommittee meetings for details about how the RAP calculated the \$5000 figure and related issues.</p> <p>After further discussion, the commenter, who favored expressing the \$5000/turbine/year figure differently than the proposed regulation provides, now agrees with the method contained in the final regulation. Even though this commenter now agrees with the method of calculation, the commenter would like for DEQ to change one of the factors in that calculation – that is, the commenter suggests that DEQ reduce the capacity factor from 30% to 20%. This reduction in the capacity factor would result in an increase of the calculation's result from approximately 120 hours/year to approximately 180 hours/year.</p>
<p>Invenergy - Don Giecek</p>	<p>The Wind RAP agreed upon the cost cap of \$5,000/turbine/year for small wind development projects to be used for monitoring and mitigation objectives. The RAP considered and advanced to DEQ several ways of expressing and monitoring this cap, including the derivation of an "hours of operation" curtailment requirement. DEQ determined that the best metric to use is an operational curtailment of 120 hours of operation per turbine per year, in the interest of mitigation impacts to wildlife/bats. Invenergy supports this approach as the best way to directly mitigate potential bat impacts for several reasons - it simplifies implementation and tracking of the cap; it simplifies the assessment of operational impacts to wildlife/bats; it removes the need to include revenue calculations to determine if the cap has been met; it removes market pricing as a potential scientific variable in the mitigation and monitoring program; and it minimizes the extent that sensitive financial information needs to be disclosed. We feel that the equation converting a dollar cap to an hourly cap was well established and vetted, particularly during the Wind RAP. Industry prepared a detailed calculation that was thoroughly explained to all stakeholders. Each input to this calculation was offered in good faith based on knowledge of current and anticipated market conditions. Some of these conditions are rapidly changing. The price of energy and the value of renewable energy credits</p>	<p>Commenters from industry counter that the 30% capacity factor comports with actual wind data collected in Virginia (i.e., 37%). These commenters indicate that trends in turbine design and manufacture suggest that capacity factors will increase, not decrease, over time. They further point out that industry representatives had "given" a benefit in the RAP-recommended calculation: they had refrained from adding into the dollars/MWh factor the value of federal production tax credits; even though they believe they are entitled to claim this tax credit in the</p>

	<p>are subject to fluctuations. The nameplate capacity of onshore turbines is quickly moving towards 2.5 MW. Capacity factors are increasing. It is not possible to predict these factors with perfect precision. Based on our experience in Virginia, we feel that the capacity factor currently used in the conversion is appropriate. The federal production tax credits were incorporated into the dollars per MWh amount used in the current conversion as an equalizer, figuring this offer would help to avoid lengthy arguments over values of the aforementioned inputs and resulting calculations. Any attempt to significantly adjust current inputs or the conversion formula would require that industry reconsider the inclusion of tax credits in the calculation.</p>	<p>calculation. If the federal production tax credit were included, they assert that the dollars/MWh factor would increase from \$70 to \$92. Correspondingly, the total value resulting from the calculation – that is, 120 hours/year -- would be decreased, and not increased, as the other commenter requested. Industry commenters indicate that they would need to reconsider omitting the value of the federal production tax credit, which they assert they are entitled to claim, if the capacity factor is reduced below 30%.</p> <p>The department acknowledges that the factors that make up the “\$5000 cap” calculation cannot be set forth with absolute precision. The calculation – and the factors that make up that calculation – was discussed by the RAP in some detail, however. Although one commenter now raises questions about the accuracy of the 30% capacity factor and suggests that it can be reduced, other commenters provided data that militate in favor of the 30% figure. These commenters then suggest that another factor – the dollars/MWh – should potentially be increased from \$70 to \$92. In view of all of these comments, and the work done by the original Wind RAP, the department plans to retain the calculation and the factors as contemplated by the original Wind RAP. The calculation includes a capacity factor of 30% and a dollars/MWh factor of \$70.</p>
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Commenters	Comments by Category	Agency response
<p>Rick Webb - Virginia Wind</p>	<p>Monitoring Data:</p> <p>The DEQ noted that they intend to clarify requirements related to data submission, evaluation, retention, and public availability (i.e., wildlife data and analysis results; monitoring data) in regulation or guidance. The DEQ should make requirements known "up front," and requirements should be proposed as regulations rather than guidance. The public should be provided a new formal comment period to review and provide input on these requirements.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p><u>See</u> explanation in the "changes made" section of this document regarding Guidance.</p> <p>In response to public comment, the department has changed several sections to require the applicant to submit actual data and supporting documents, and not just a summary.</p>
<p>Rick Webb - Virginia Wind</p>	<p>Objective Criteria:</p> <p>Decisions concerning a number of critical regulatory requirements are described by DEQ as based on Regulatory Advisory Panel (RAP) consensus. This is evasive or nonresponsive to requests for the basis for important rule-making decisions.</p> <p>What objective criteria provided the basis for the RAP determination that a disturbance zone defined as the directly impacts are plus a margin of 100 feet provides a sufficient criterion for evaluation of potential wildlife impacts? What documents and information was considered by the RAP in making this determination?</p> <p>What objective criteria provided the basis for the DEQ or RAP determination to limit site-specific data collection to only T&E and SGCN wildlife species?</p> <p>What objective criteria provided the basis for the RAP determination that protocols and methods should not be included as regulations subject to formal public review and comment?</p>	<p>Comments accepted and taken into consideration by staff.</p> <p><u>See</u> explanation in the "changes made" section of this document regarding the department's deference to consensus-based recommendations of the RAP.</p> <p>The RAP's reasoning is described in meeting notes of the 15 meetings of the original Wind RAP and the seven meetings of the Offshore RAP. All meeting notes are available on the Regulatory Town Hall.</p>

Commenters	Comments by Category	Agency response
<p>Rick Webb - Virginia Wind</p>	<p>Offset of Adverse Impacts:</p> <p>The DEQ noted that questions related to the development of reasonable and proportionate mitigation plans that offset adverse impacts related to impacts on historic resources were resolved by consensus of the RAP with DHR input and would be addressed in guidance. The DEQ should make requirements known "up front," and requirements should be proposed as regulations rather than guidance. The public should be provided a new formal comment period to review and provide input on these requirements.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p><u>See</u> explanations in the "changes made" section of this document.</p> <p>All proposals made by the RAPs for agency Guidance are available to the public on request. They will be part of the department's drafting of Guidance, and the department will be opening the Guidance-drafting process to public input, even though such is not required.</p>
<p>Rick Webb - Virginia Wind</p>	<p>Potential Environmental Harm:</p> <p>Is there any threshold of potential environmental harm that will result in permit denial or substantial project modification? Consistent with the intent of the PBR legislation, the DEQ should make requirements known "up front" and requirements should be proposed as regulations rather than guidance. The public should be provided a new forma comment period to review and provide input on these requirements.</p>	<p>Comments accepted and taken into consideration by staff.</p>
<p>Rick Webb - Virginia Wind</p>	<p>Protocols and Standards:</p> <p>The DEQ noted that the protocols and methods details were developed by consensus of the RAP. The DEQ also noted that they plan to include these as guidance to be written after the regulations are final, per consensus of the RAP and that guidance drafting is not subject to the Administrative Process Act. What objective criteria provided the basis for the RAP determination that protocols and methods should not be included as regulations subject to formal public review and comment? Informal development of requirements as guidance at an unspecified later time does not conform with the purpose of the PBR or the stated intent of the DEQ to provide certainty and rules "up front". Protocol and method requirements should be proposed as regulations and the public should be provided a new formal comment period to review and provide input on these requirements.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p><u>See</u> explanations regarding Guidance in the "changes made" section of this document, in meeting notes of RAP meetings (available on the Regulatory Town Hall), and on request from the department.</p>

		<p>statutory or regulatory requirement for the Director to hold this public meeting. The opportunity to address the decision-maker before a final decision is made is being done at the Director's discretion in order to hear directly from those persons who commented on the regulation, and is in keeping with how the three citizen boards (Air Board, Water Control Board, and Waste Board) operate when taking final action on the adoption of a regulation. Again, notice of this public meeting has been posted, and the RAP leader has sent emails about it to RAP members, alternates, and interested parties.</p>
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Commenters	Comments by Category	Agency response
<p>The Nature Conservancy - Nicole M. Rovner; Judy K. Dunscomb</p>	<p>Species that Require Mitigation:</p> <p>We suggest that DEQ modify section 9VAC15-40-60 B to list, in addition to those groups or categories covered in subparagraph 1-4, a few specific SGCN species for which mitigation is required, and we recommend that those additions consist of the following species: Northern saw-whet owl (<i>Aegolius acadicus</i>); Cerulean warbler (<i>Dendroica cerulean</i>); Red crossbill (<i>Loxia curvirostra</i>); Winter wren (<i>Troglodytes troglodytes</i>); Golden-winged warbler (<i>Vermivora chrysoptera</i>); Peaks of Otter salamander (<i>Plethodon hubrichti</i>); Cow Knob salamander (<i>Plethodon punctatus</i>); Weller's salamander (<i>Plethodon welleri</i>); & Mountain earthsnake (<i>Virginia valeriae pulchra</i>).</p> <p>All of these species are described within the Virginia State Wildlife Action Plan as having an "extremely high" or "high risk of extinction or extirpation" and requiring immediate management to stabilize and recover their populations. These species depend, at least in part, on high elevation habitats in Virginia and are noted in the Virginia Division of Natural Heritage Database as having documented occurrences in areas mapped as Wind Class 3 or better. Many of these species - especially the salamanders - have either fairly specific habitat requirements or are known to occupy small and localized home ranges. The number of species potentially impacted is not large and establishing an appropriate mitigation plan if impacts are deemed likely would not be burdensome to industry, especially since it is largely up to the applicant to decide what mitigation measures it can realistically pursue.</p> <p>We further suggest that the language describing mitigation requirements mirror that provided in proposed 9VAC15-40-60 B 3.</p>	<p>Comments accepted and taken into consideration by staff.</p> <p>See explanation in the "changes made" section of this document concerning SGCN and other "triggers" for wildlife mitigation plans. Among other considerations, the commenter did not show that the potential impact of wind turbines on these species is any greater or different from the impact of any other type of development that might occur in the areas where these species are found.</p>

All changes made in this regulatory action

Please detail all changes that are being proposed and the consequences of the proposed changes. Detail new provisions and/or all changes to existing sections.

9 VAC 15-40 is a new chapter designed to implement the statutory mandates of Virginia 2009 Acts of Assembly Chapters 808 and 854 (“the 2009 statute”), which move permitting authority for environmental requirements of small renewable energy projects from the State Corporation Commission (SCC) to the Department of Environmental Quality (DEQ).

The legislation requires DEQ to develop “permits by rule,” which are streamlined permitting vehicles currently utilized in DEQ’s solid waste division, and which set forth “up front” what requirements all applicants must meet in order to be covered by the permit by rule. The legislation further requires that the regulations include standards necessary to protect the Commonwealth’s natural resources. This permit by rule seeks to balance the two statutory goals – (1) to streamline and facilitate development of small renewable energy projects and (2) to protect natural resources.

Pursuant to the statute’s provisions, DEQ determined that more than one permit by rule will be necessary to address all renewable media. This permit by rule addresses wind-energy projects.

HOW THE PERMIT BY RULE FOR WIND ENERGY COMPARES WITH CURRENT LAW:

Under current law, developers of proposed wind energy projects must apply to the SCC, where hearings are held to determine what natural-resource protections will be required at the proposed project site. The SCC’s determination is made on a case-by-case basis. The SCC receives input from the natural-resource agencies regarding the agencies’ recommendations for needed resource protections for a proposed project. To the best of our knowledge, there are few guidelines in place to inform either the agencies’ recommendations or the SCC’s acceptance or rejection of those recommendations. There are no time limitations on how long the SCC process may take.

Under the 2009 statute applicants must apply to DEQ for a permit by rule regarding the construction and operation of a proposed wind energy project of 100 megawatts or less. Under this permit by rule an applicant for a project of 5 megawatts to 100 megawatts must apply for a permit by rule and projects 500 kW to 5 megawatts must submit a copy of the local government approval to DEQ and perform other minimal requirements. The permit by rule sets forth, in detailed fashion, what all applicants must do to gain permit coverage or provide notification. The combination of the permit by rule plus DEQ’s guidance will fully explain how each standard must be achieved. The permit by rule also sets forth the requirement that DEQ process that application and render a decision to the applicant within 90 days. The other natural-resource agencies will continue to have input into this process, but in a different fashion than under existing law. All of the natural-resource agencies were represented on the Regulatory Advisory Panel (RAP) that developed recommendations for this regulation. Further, these agencies will be consulted by DEQ when DEQ makes a decision about each permit application, as required by the 2009 statute. By these methods, input from the natural-resource agencies will continue to be a vital part of the permit decision, but within carefully defined structures and time frames.

HOW THE NEW PERMIT BY RULE FOR WIND ENERGY PROJECTS ADDRESSES GOALS OF INDUSTRY AND OF ENVIRONMENTAL INTERESTS:

Nationwide, representatives of the wind-energy industry generally articulate three major needs when they seek governmental permission to develop a wind project: certainty, timeliness, and reasonableness. As stated above, the permit by rule will provide a very high degree of certainty and timeliness. As for reasonableness, the permit by rule also provides the most appropriate and reasonable standards the RAP and DEQ could develop to balance facilitating renewable energy with protecting natural resources, in compliance with the mandates of the statute. Accordingly, DEQ believes that the permit by rule puts wind developers in a better position than did existing law.

The statute and the permit by rule also address resource-protection needs often cited by environmental advocacy groups and by DEQ's sister agencies as being top priorities. Under the new regimen, significant resource protections will be required for every single project, even if no advocacy group has the time or resources to comment on an individual application. That is the nature of a permit by rule -- to lay out uniform, across-the-board standards for all projects. Virginia's 2009 statute goes further than most other states' standards do in requiring certain natural-resource protections, and the proposed regulations implement those protections, as set forth below. Further, DEQ has an effective apparatus for regulatory enforcement, which some observers of current wind projects believe the SCC lacks. Thus, the permit by rule achieves many of the goals of environmental groups with respect to wind projects.

In summary, the statute and the permit by rule for wind energy projects provides a number of advantages, for both industry and environmental interests. They help promote development of wind energy, which appears to be an environmental and economic benefit to all citizens.

HOW THE NEW PERMIT BY RULE FITS INTO LOCAL, STATE, AND FEDERAL REQUIREMENTS:

The permit by rule implements the requirements of the 2009 legislation, which defines natural-resource protections at small wind energy projects in Virginia. For the most part, the resources enumerated in the 2009 legislation are not the subject of regulation under current law, but rather are the subject of advisory consultations with natural-resource agencies other than DEQ. DEQ is a regulatory agency. The 2009 statute makes clear that DEQ's regulatory environmental permits (air, water, waste, wetlands, etc.), as well as those regulatory permits of any other agency, if relevant, are still required. The 2009 statute requires that the permit by rule applicant submit to DEQ certification that he has obtained, or applied for, these other environmental permits. The 2009 statute does not abrogate these other permit requirements. Nor does it abrogate local requirements, as reflected by the fact that the 2009 statute requires the applicant to submit to DEQ certification that he has complied with local land-use provisions. Since the 2009 statute does not explicitly speak to federal requirements, the proposed regulation does not reference federal requirements either. It seems clear, however, that the applicant must comply with requirements of FAA and other federal agencies. To help the public understand that the permit by rule is only one of many requirements a wind energy developer must fulfill, DEQ plans to make information about the full scope of local, state, and federal requirements available on its website.

Section Number	Requirements	Rationale and Consequences
10	<p>Part I Definitions and Applicability.</p> <p>Definitions.</p> <p>The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:</p> <p>“Applicant” means the owner or operator who submits an application to the department for a permit by rule pursuant to this chapter.</p> <p>"Coastal Avian Protection Zones" (or "CAPZ") means the areas designated on the map of "Coastal Avian Protection Zones" generated on the department's Coastal GEMS geospatial data system (9VAC15-40-120 C 1)."</p> <p>“Department” means the Department of Environmental Quality, its director, or the director’s designee.</p> <p>“DCR” means the Department of Conservation and Recreation.</p> <p>“DGIF” means the Department of Game and Inland Fisheries.</p> <p>“Disturbance zone” means the area within the site directly impacted by construction and operation of the wind energy project, and within 100 feet of the boundary of the directly impacted area.</p> <p>“Ecological core” means an area of non-fragmented forest, marsh, dune, or beach of ecological importance that is at least 100 acres in size and identified in DCR’s Natural Landscape Assessment web-based application (9VAC15-40-120 C 2).</p> <p>"Historic Resource" means any prehistoric or historic district, site, building, structure, object, or cultural landscape which is included or</p>	<p>The definitions explain meanings of relevant terms as these terms are used in the proposed regulation. In a number of instances, the definitions reflect specific decisions debated and recommended by the RAP, and these definitions are not intended to have application beyond the reach of the proposed regulation. Where possible, the RAP used definitions taken from the natural-resource agencies’ existing laws and regulations.</p> <p>The Offshore RAP’s recommendation includes substituting a new map for the former reference to Coastal GEMS databases. The new map is called the "Coastal Avian Protection Zones" ("CAPZ") map, and it will be housed on Coastal GEMS as an entirely new data layer. An applicant’s utilization of the CAPZ map will constitute both the "desktop" analysis and at least part of the "field study" analysis.</p> <p>The definition of “disturbance zone” is important because the proposal prescribes certain environmental analyses or procedures that the applicant must perform within this area. Analyses and protections required for the disturbance zone are generally more detailed and stricter than those for the larger surrounding area or “site.”</p> <p>Since the proposal is a state regulation, the RAP recommended using a Virginia definition of “historic resource.”</p>

<p>meets the criteria necessary for inclusion in the Virginia Landmarks Register pursuant to the authorities of § 10.1-2205 of the Code of Virginia and in accordance with 17VAC5-30-40 through 17VAC5-30-70.</p> <p>"Important Bird Areas" means the designation of discrete sites by the National Audubon Society as having local, regional, continental or global importance for birds because they support significant numbers of one or more high priority avian species (e.g. T&E, SGCN) during the breeding, wintering, and (or) migration seasons.</p> <p>"Interconnection point" means the point or points where the wind energy project connects to a project substation for transmission to the electrical grid.</p> <p>"Invasive plant species" means non-native plant species that cause, or are likely to cause, economic or ecological harm or harm to human health as established by Presidential Executive Order 13112 (64 FR 6183, February 3, 1999), and contained on DCR's Invasive Alien Plant Species of Virginia (9VAC15-40-120 B 3).</p> <p>"Migratory corridors" means major travel routes used by significant numbers of birds during biannual migrations between breeding and wintering grounds.</p> <p>"Migratory staging areas" means those sites along migratory corridors where significant numbers of birds stop to feed and rest during biannual migrations between breeding and wintering grounds that are essential to successful migration.</p> <p>"Natural heritage resource" means the habitat of rare, threatened, or endangered plant and animal species, rare or state significant natural communities or geologic sites, and similar features of scientific interest benefiting the welfare of the citizens of the Commonwealth.</p> <p>"Nearshore waters" means all tidal waters with the Commonwealth of Virginia, and seaward of the mean low-water shoreline to three (3) nautical miles offshore in the Atlantic Ocean.</p>	<p>Definitions relating to avian migration, staging, and wintering were developed by consensus by the Offshore RAP, with relation to provisions for the Coastal Avian Protection Zone (CAPZ), described in this regulation.</p> <p>The definition of "nearshore waters" was developed by the Offshore RAP specifically for use in this permit by rule. NOTE: Use of the term "offshore" was abandoned because it is understood by so many people to mean "federal waters,"</p>
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<p>"Operator" means the person responsible for the overall operation and management of a wind energy project.</p> <p>"Other avian mitigation factors" means Important Bird Areas, migratory corridors, migratory staging areas and wintering areas within the Coastal Avian Protection Zones.</p> <p>"Owner" means the person who owns all or a portion of a wind energy project.</p> <p>"Permit by rule" means provisions of the regulations stating that a project or activity is deemed to have a permit if it meets the requirements of the provision.</p> <p>"Person" means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, county, city, town, or other political subdivision of the Commonwealth, any interstate body, or any other legal entity.</p> <p>"Phase of a project" means one continuous period of construction, startup, and testing activity of the wind energy project. A phase is deemed complete when 90 calendar days have elapsed since the last previous wind turbine has been placed in service, except when a delay has been caused by a significant force majeure event, in which case a phase is deemed complete when 180 calendar days have elapsed since the last previous wind turbine has been placed</p>	<p>where the state has no jurisdiction. The term "nearshore waters" is intended to refer to relevant state waters.</p> <p>The term "other avian mitigation factors" refers to four specific types of key avian areas within the CAPZ. Each of these four types of areas is separately defined in this section. The Offshore RAP agreed that both specific avian species and these key areas should be analyzed, and based on the results of the analysis, the department should decide whether significant adverse impacts to these resources are likely and mitigation should thus be required.</p> <p>Although the 2009 statute directs DEQ to develop permits by rule for renewable energy projects, the term "permit by rule" had never been defined in either statute or regulation. "Permit by rule" is a permitting vehicle utilized in DEQ's solid waste permitting programs. The RAP adhered as closely as possible, given all the 2009 statute's provisions, to the permit by rule model from solid waste in developing standards for the current wind permit by rule. The regulatory definition is a new one, but it conforms to DEQ's practices for permits by rule in the solid waste program.</p> <p>The definition of "phase" was developed to prevent an applicant from potentially "gaming the system." Some RAP members were concerned that an unscrupulous developer might purposely delay erecting the last turbine so that he could operate all the others without a needed mitigation plan.</p>
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<p>in service.</p> <p>“Post-construction” means any time after the last turbine on the wind energy project or phase of that project has been placed in service.</p> <p>“Pre-construction” means any time prior to commencing land-clearing operations necessary for the installation of energy-generating structures at the small wind energy project.</p> <p>“Rated capacity” means the maximum capacity of a wind energy project based on the sum total of each turbine’s nameplate capacity.</p> <p>“SGCN” or “species of greatest conservation need” means any vertebrate species so designated by DGIF as Tier 1 or Tier 2 in the Virginia Wildlife Action Plan (9VAC15-40-120 B 6).</p> <p>“Site” means the area containing a wind energy project that is under common ownership or operating control. Electrical infrastructure and other appurtenant structures up to the interconnection point shall be considered to be within the site.</p> <p>“Small renewable energy project” means (i) an electrical generation facility with a rated capacity not exceeding 100 megawatts that generates electricity only from sunlight, wind, falling water, wave motion, tides, or geothermal power, or (ii) an electrical generation facility with a rated capacity not exceeding 20 megawatts that generates electricity only from biomass, energy from waste, or municipal solid waste.</p> <p>“Small wind energy project” or “wind energy project” or “project” (i) means a small renewable energy project that generates electricity from wind, whose main purpose is to supply electricity, consisting of one or more wind turbines and other accessory structures and</p>	<p>DGIF and all other RAP members (save one) agreed that it was appropriate to confine any consideration of Species of Greatest Conservation Need to vertebrates only. They stated that invertebrate species can be incredibly hard to locate and identify, and qualified experts in the field who might assist an applicant are scarce. All RAP members agreed that the most important SGCN are listed in Tiers 1 & 2, and that it would be appropriate for the wind permit by rule to address only species listed in those tiers, and not in Tiers 3 and 4. The number of species an applicant will have to address is considerably reduced by confining SGCN to only Tiers 1 & 2 vertebrates.</p> <p>This is the definition of “small renewable energy project” set forth in the 2009 statute.</p>
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<p>buildings, including substations, post-construction meteorological towers, electrical infrastructure, and other appurtenant structures and facilities within the boundaries of the site; and (ii) is designed for, or capable of, operation at a rated capacity equal to or less than 100 megawatts. Two or more wind energy projects otherwise spatially separated but under common ownership or operational control that are connected to the electrical grid under a single interconnection agreement, shall be considered a single wind energy project. Nothing in this definition shall imply that a permit by rule is required for the construction of meteorological towers to determine the appropriateness of a site for the development of a wind energy project.</p> <p>"State owned submerged lands" means lands which lie seaward of the mean low water mark in tidal waters or which have an elevation below the ordinary mean high water elevation in nontidal areas that are considered property of the Commonwealth pursuant to § 28.2-1200 of the Code of Virginia.</p> <p>"T&E" or "state threatened or endangered species" or "state-listed species" means any wildlife species designated as a Virginia endangered or threatened species by DGIF pursuant to the §29.1-563-570 of the Code of Virginia and 4VAC15-20-130.</p> <p>"VLR" means the Virginia Landmarks Register (9VAC15-40-120 B 1).</p> <p>"VLR-eligible" means those historic resources that meet the criteria necessary for inclusion on the VLR pursuant to 17VAC5-30-40 through 17VAC5-30-70 but are not listed in VLR.</p> <p>"VLR-listed" means those historic resources that have been listed in the VLR in accordance with the criteria of 17VAC5-30-40 through 17VAC5-30-70.</p> <p>"VMRC" means the Virginia Marine Resources Commission.</p> <p>"Wildlife" means wild animals; except, however, that T&E insect species shall only be addressed as part of natural heritage</p>	<p>The definition of "state owned submerged lands" is taken from existing VMRC regulations and guidance.</p> <p>This definition of "T&E" purposely focuses on those T&E species designated by DGIF, and omits T&E insects designated by VDACS. See note below regarding definition of "wildlife."</p> <p>Theoretically, a simple word like "wildlife" should be easy to define; however, the RAP discovered that quite the opposite is true. The RAP reviewed numerous definitions from both state</p>
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	<p>resources, and shall not be considered T&E wildlife.</p> <p>"Wintering areas" means those sites where a significant portion of the rangewide population of one or more avian species overwinters annually.</p>	<p>and federal laws and regulations, discussed numerous related issues and sub-issues, and finally concluded it best to use a broad, general definition. Details like "non-native," "exotic," "undomesticated," etc. will be addressed in DEQ's guidance as needed.</p> <p>The RAP, including representatives of the Virginia Department of Agriculture and Consumer Services (VDACS) and of DGIF, agreed that T&E insects should be treated as part of Natural Heritage Resources and not as wildlife. This approach is consistent with how T&E plants and insects are addressed under VDACS' law as it applies to all development projects. That is, developers consult DCR's mapping of Natural Heritage Resources. If habitat for T&E plants or insects is found on the proposed development site, then the developer consults with VDACS. Pursuant to VDACS' law, landowners and persons acting with the landowner's explicit permission – who could include developers who lease land for wind energy projects – can take any action they deem appropriate on their own land. This proviso to the definition of "wildlife" is designed to prevent the presence of T&E insects from becoming an automatic, mandatory trigger for wildlife mitigation under the proposed regulation, since it does not do so under VDACS' law.</p>
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Section Number	Requirements	Rationale and Consequences
20	<p>Authority and applicability.</p> <p>This regulation is issued under authority of Article 5 (§ 10.1-1197.5 et seq.) of Chapter 11.1 of Title 10.1 of the Code of Virginia. The regulation contains requirements for wind-powered electric generation projects consisting of wind turbines and associated facilities with a single interconnection to the electrical grid that are designed for, or capable of, operation at a rated capacity equal to or less than 100 megawatts. The department has determined that a permit by rule is required for small wind energy projects with a rated capacity greater than 5 megawatts and this regulation contains the permit by rule provisions for these projects in Part II (9VAC15-40-30 et seq.) of this chapter. The department has also determined that a permit by rule is not required for small wind energy projects with a rated capacity of 5 megawatts or less and this regulation contains notification and other provisions for these projects in Part III (9VAC15-40-130) of this chapter.</p>	<p>This section reiterates the statute’s provision that this regulation shall apply to projects of 100 megawatts and smaller. The SCC retains authority over projects larger than 100 megawatts. The section also details which regulatory provisions will apply to projects greater than 5 MW and which will apply to projects of 5 megawatts or less. Further discussion regarding this issue is provided in the alternatives section of TH02 and in the “changes made” section of TH03.</p> <p>Consensus recommendation of the Offshore/Coastal RAP.</p>

Section Number	Requirements	Rationale and Consequences
30	<p>Part II Permit by Rule Provisions</p> <p>Application for a permit by rule for wind energy projects.</p> <p>A. The owner or operator of a small wind energy project with a rated capacity greater than 5 megawatts shall submit to the department a complete application, in which he satisfactorily accomplishes all of the following:</p> <ol style="list-style-type: none"> 1. In accordance with § 10.1-1197.6 B 1 of the Code of Virginia, and as early in the project development process as practicable furnishes to the department a notice of intent, to be published in the Virginia Register, that he intends to submit the necessary documentation for a permit by rule for a small renewable energy project; 2. In accordance with § 10.1-1197.6 B 2 of the Code of Virginia, furnishes to the department a certification by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances; 	<p>This section lists the 14 basic application requirements as set forth in the 2009 statute. If a particular requirement warrants detailed explanation, then that explanation is set forth either in Guidance, in a subsequent section of the proposed regulation, or in both. For example, the analyses, determination of significant adverse impact, and mitigation requirements in paragraphs 7 and 8 are spelled out in three subsequent sections of this proposed regulation.</p> <p>The application requirements are quite specific, as is the practice in a permit by rule. Developers generally value that certainty of knowing exactly what they will be required to do. It enables them to plan their project’s design and operation, and to secure financing. Virginia’s proposed regulations appear superior to most states’ approaches in this respect, since most states largely make permitting decisions on a case-by-case, ad hoc basis.</p> <p>The 2009 statute authorizes DEQ to develop a permit by rule for the “construction and operation” of small renewable energy projects. The statute does not address other major phases of a project’s development, namely siting and decommissioning. There is a subtle but significant difference between siting decisions (that is, whether or not a developer can put a project in a particular location) and permitting decisions (that is, how a developer must construct and operate the project). Since the 2009 statute only authorizes DEQ to develop a permit program for construction and operation of projects, it is assumed that local governments will essentially be making the siting decisions in the process of determining whether to grant special use permits, zoning provisions, and the like. Likewise, decommissioning decisions will presumably fall to local governments, the provisions of the developer’s lease agreement, or other relevant entities or documents. Siting and decommissioning criteria are not included in the proposed</p>

	<p>3. In accordance with § 10.1-1197.6 B 3 of the Code of Virginia, furnishes to the department copies of all interconnection studies undertaken by the regional transmission organization or transmission owner, or both, on behalf of the small renewable energy project;</p> <p>4. In accordance with § 10.1-1197.6 B 4 of the Code of Virginia, furnishes to the department a copy of the final interconnection agreement between the small renewable energy project and the regional transmission organization or transmission owner indicating that the connection of the small renewable energy project will not cause a reliability problem for the system. If the final agreement is not available, the most recent interconnection study shall be sufficient for the purposes of this section. When a final interconnection agreement is complete, it shall be provided to the department. The department shall forward a copy of the agreement or study to the State Corporation Commission;</p> <p>5. In accordance with § 10.1-1197.6 B 5 of the Code of Virginia, furnishes to the department a certification signed by a professional engineer licensed in Virginia that the maximum generation capacity of the small wind energy project, as designed, does not exceed 100 megawatts;</p> <p>6. In accordance with § 10.1-1197.6 B 6 of the Code of Virginia, furnishes to the department an analysis of potential environmental</p>	<p>permit by rule. As specified in the statute and proposed regulation, DEQ expects to receive certification from the local government that the applicant has met all local zoning, use permit, and other land-use-related requirements before DEQ considers the applicant's permit by rule application.</p> <p>3. & 4. DEQ plans to continue communications with representatives of PJM, the transmission authority serving Virginia, when developing guidance for subsections 3 and 4. Interconnection issues are within the purview of PJM. RAP representatives communicated with PJM on behalf of the RAP during the RAP's deliberations about PBR recommendations.</p> <p>6. Although some of the other renewable media addressed by the 2009 statute involve potentially adverse impacts on</p>
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<p>impacts of the small renewable energy project's operations on attainment of national ambient air quality standards;</p> <p>7. In accordance with § 10.1-1197.6 B 7 of the Code of Virginia, furnishes to the department, where relevant, an analysis of the beneficial and adverse impacts of the proposed project on natural resources. The owner or operator shall perform the analyses prescribed in 9VAC15-40-40. For wildlife, that analysis shall be based on information on the presence, activity, and migratory behavior of wildlife to be collected at the site for a period of time dictated by the site conditions and biology of the wildlife being studied, not exceeding 12 months;</p> <p>8. In accordance with § 10.1-1197.6 B 8 of the Code of Virginia, furnishes to the department a mitigation plan pursuant to 9VAC15-40-60 that details reasonable actions to be taken by the owner or operator to avoid, minimize, or otherwise mitigate such impacts, and to measure the efficacy of those actions; provided, however, that the provisions of 9VAC15-40-30 A 8 shall only be required if the department determines, pursuant to 9VAC15-40-50, that the information collected pursuant to § 10.1-1197.6 B 7 of the Code of Virginia and 9VAC15-40-40 indicates that significant adverse impacts to wildlife or historic resources are likely. The mitigation plan shall be an addendum to the operating plan of the wind energy project, and the owner or operator shall implement the mitigation plan as deemed complete and adequate by the department. The mitigation plan shall be an enforceable part of the permit by rule;</p>	<p>attainment of NAAQS, it is not anticipated that wind energy projects will have any such adverse impacts. DEQ's guidance will explain that the applicant may meet the standard above by submitting a simple statement to this effect.</p> <p>If the applicant also chooses to state the wind energy project's beneficial impacts on attainment of NAAQS, he may do so.</p> <p>If the applicant is seeking offset credit for his wind energy project, he may append that information to this application. When DEQ's air division receives EPA's standards for offsets, those standards will become part of DEQ's Guidance for this subsection. By being part of a regulatory application, the status of the applicant's offset request may be enhanced.</p> <p>8. The 2009 statute requires Virginia applicants to develop a mitigation plan for likely "significant adverse impacts" to both wildlife and historic resources, and "to measure the efficacy" of those mitigation plans. Research has not produced evidence of such across-the-board requirements in other states.</p> <p>Some business interests may pronounce these aspects of Virginia's regulations stricter or more burdensome than those of other states; however, the regulations implement a statute in which these standards are mandated.</p> <p>Across the country, wildlife experts generally recommend that mitigation and post-construction monitoring be done regarding bat fatalities; and historic resources experts also recommend</p>
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	<p>9. In accordance with § 10.1-1197.6 B 9 of the Code of Virginia, furnishes to the department a certification signed by a professional engineer licensed in Virginia that the project is designed in accordance with 9VAC15-40-80.</p> <p>10. In accordance with § 10.1-1197.6 B 10 of the Code of Virginia, furnishes to the department an operating plan that includes a description of how the project will be operated in compliance with its mitigation plan, if such a mitigation plan is required pursuant to 9VAC15-40-50.</p> <p>11. In accordance with § 10.1-1197.6 B 11 of the Code of Virginia, furnishes to the department a detailed site plan meeting the requirements of 9VAC15-40-70;</p> <p>12. In accordance with § 10.1-1197.6 B 12 of the Code of Virginia, furnishes to the department a certification signed by the applicant that the small wind energy project has applied for or obtained all necessary environmental permits;</p> <p>13. Prior to authorization of the project and in accordance with § 10.1-1197.6 B 13 and § 10.1-1197.6 B 14 of the Code of Virginia, conducts a 30-day public review and comment period and holds a public meeting pursuant to 9VAC15-40-90. The public meeting shall be held in the locality or, if the project is located in more than one locality, in a place proximate to the location of the proposed project; however, for projects located in nearshore waters or on state owned submerged lands, the meeting shall be held in the locality that is the closest distance from the approximate center of</p>	<p>mitigation by design modifications, screening, or offsets. Virginia appears to be ahead of the curve on these environmental protections, especially Virginia makes these requirements across the board for all projects where analyses reveal that they are warranted.</p> <p>Different constituencies will have different views about the costs and benefits of these requirements. In the final analysis, Virginia's statutory mandates for mitigation and post-construction monitoring are policy decisions made by the General Assembly after listening to the views of stakeholders on all sides of the issues. The proposed regulation attempts merely to implement these mandates, and to do so as faithfully, fairly, and reasonably as possible.</p> <p>10. This provision makes clear that DEQ is concerned only with the aspects of the project's operating plan that involve implementation of the mitigation plan, if a mitigation plan is required. Enforcing health and safety and other operating-plan issues are not within DEQ's authority over natural-resource protections, and they are left to the authority of local government and other relevant entities.</p> <p>13. The 2009 statute provides that the applicant must hold a public meeting. The statute also provides that a 30-day public review and comment period must occur but does not specify who is to conduct it. The RAP discussed whether that entity should be the applicant or DEQ. In the waste permit by rule, the applicant is the party who conducts this comment period. The General Subcommittee and plenary RAP endorsed the proposed provision, which assigns the applicant responsibility for both the public meeting and public comment period. One</p>
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<p>the project's disturbance zone. Following the public meeting and public comment period, the applicant shall prepare a report summarizing the issues raised by the public and include any written comments received and the applicant's response to those comments. The report shall be provided to the department as part of this application; and</p> <p>14. In accordance with 9VAC15-40-110, furnishes to the department the appropriate fee.</p> <p>B. Within 90 days of receiving all of the required documents and fees listed in subsection A of this section, the department shall determine, after consultation with other agencies in the Secretariat of Natural Resources, whether the application is complete and whether it adequately meets the requirements of this chapter, pursuant to § 10.1-1197.7 A of the Code of Virginia.</p> <p>1. If the department determines that the application meets the requirements of this chapter, then the department shall notify the applicant in writing that he is authorized to construct and operate a small wind energy project pursuant to this chapter.</p> <p>2. If the department determines that the application does not meet the requirements of this chapter, then the department shall notify the applicant in writing and specify the deficiencies.</p> <p>3. If the applicant chooses to correct deficiencies in a previously submitted application, the department shall follow the procedures of this subsection and notify the applicant whether the revised application meets the requirements of this chapter within 60 days of receiving the revised application.</p> <p>4. Any case decision by the department pursuant to this subsection shall be subject to the process and appeal provisions of the Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia).</p>	<p>advantage of having the applicant perform this function is that it provides an opportunity for the applicant and public to seek common ground on controversial issues before the final application is submitted to DEQ.</p> <p>The Offshore RAP discussed several options to determine where the applicant should hold the public meeting when the project is located in the water. The RAP recommended the simple approach of holding the public meeting in the closest on-land locality, with the caveat (in DEQ Guidance) that all localities where the project is likely to have impacts should be notified about the public meeting. These provisions also appear in 9VAC15-40-90, where Public Participation is discussed in detail.</p> <p>B. The proposed 90-day time limit for permit processing is expected to be beneficial to developers, allowing them to proceed with their proposed projects in a timely fashion. It is another aspect of certainty that helps developers make planning decisions and obtain financing. Research indicates that this proposed timeframe is significantly shorter than those used in many other states, and that a number of states do not even provide a time limit for permitting decisions. All RAP members, including representatives of the natural-resources sister agencies, agreed that an adequate and meaningful review of an application can be accomplished within 90 days.</p> <p>4. This provision reminds the public that the permit by rule, like all other DEQ regulations, affords the applicant (and others who have participated in the public participation process) full rights under the Administrative Process Act. These rights may include the right to an informal hearing, formal hearing, or both.</p>
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Section Number	Requirements	Rationale and Consequences
40	<p>Analysis of the beneficial and adverse impacts on natural resources.</p> <p>A. Analyses of wildlife. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall conduct pre-construction wildlife analyses. The analyses of wildlife shall include the following:</p> <ol style="list-style-type: none"> 1. Desktop surveys and maps. The applicant shall obtain a wildlife report and map generated from DGIF's Virginia Fish and Wildlife Information Service web-based application (9VAC15-40-120 C 3) or from a data and mapping system including the most recent data available from DGIF's subscriber-based Wildlife Environmental Review Map Service of the following: (i) known wildlife species and habitat features on the site or within two (2) miles of the boundary of the site; (ii) known bat hibernacula on the site or within five (5) miles of the boundary of the site; and (iii) known maternity and bachelor bat colonies on the site or within twelve (12) miles of the boundary of the site and (iv) known or potential sea turtle nesting beaches located within one (1) mile of the disturbance zone. 2. Breeding bird surveys. If the desktop analyses prescribed in subdivision 1 of this subsection indicate the presence of or habitat for a state-listed T&E bird species or a Tier 1 or Tier 2 bird SGCN within the disturbance zone, then the applicant shall conduct a breeding bird survey to identify state T&E bird species and Tier 1 and Tier 2 bird SGCN occurring within the disturbance zone during the species' annual breeding season. 	<p>The 2009 statute requires an applicant to analyze natural resources "where relevant." "Relevant" is a hard word to define in narrative terms. The RAP chose to define it operationally. That is, the wildlife, historic, and other natural resources enumerated in this section are "relevant" if they are detected in the disturbance zone or other specified area by use of the assessment tools prescribed in the regulation. Only the natural resources specified in this section can be deemed relevant. And these natural resources only become relevant if the prescribed methods indicate that they exist in the prescribed areas in or near the disturbance zone.</p> <p>A. The following wildlife analyses were agreed upon by the majority of RAP members as appropriate tools for identifying potential impacts of a proposed wind project on important wildlife. DEQ guidance documents, which have already been created in large part by the RAP's Living Resources Subcommittee, will explain in detail how these analyses should be conducted.</p> <p>The general approach is for the applicant to perform desktop studies of the project area. If the desktop models indicate the presence of relevant wildlife, then the applicant will proceed to perform field studies, usually within the disturbance zone. Results of all studies will be reported to DEQ, along with the applicant's analysis of beneficial and adverse impacts on relevant wildlife of the proposed project.</p> <p>T&E species are addressed in a number of provisions within the Wind PBR; however, the Offshore RAP wanted to ensure that protection of sea turtles extends to their nesting on shore. The Offshore RAP recommended provisions to protect sea turtle nesting, both here and in subsequent sections.</p> <ol style="list-style-type: none"> 1. Provisions to protect sea turtle nesting areas are based on consensus recommendation of the Offshore/Coastal RAP. 2. & 3. Please see the "Alternatives" section of the TH02

<p>3. Field survey of non-avian resources. If the desktop analyses prescribed in subdivision 1 of this subsection indicate the presence of or habitat for a Tier 1 or Tier 2 vertebrate SGCN, other than a bird, within the disturbance zone, then the applicant shall conduct field surveys of suitable habitats for that species within the disturbance zone to determine the species' occurrence and relative distribution within the disturbance zone.</p> <p>4. Raptor migration surveys. The applicant shall conduct one year of raptor migration surveys, in both the spring and fall seasons, to determine the relative abundance of migrant raptors moving through the general vicinity of the disturbance zone.</p> <p>5. Map and field studies for avian resources in Coastal Avian Protection Zones.</p> <p>a. The applicant shall consult the "Coastal Avian Protection Zones" map generated on the department's Coastal GEMS geospatial data system (9VAC15-40-120 C 1) and determine whether the proposed wind energy project site will be located in part or in whole within one or more CAPZ.</p> <p>b. When a proposed wind energy project site will be located in part or in whole within one or more Coastal Avian Protection Zones, then the applicant shall perform avian field studies, or shall rely on existing scientific analysis as reflected on the CAPZ map, for each zone where the project is located as follows:</p> <p>(1) Zone 1: Nearshore waters extending 1 - 4.83 km (0.62 – 3 mi) from Virginia's ocean-facing shoreline, excluding the mouth of the Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory Piping Plovers, Wilson's Plovers, Peregrine Falcons, Gull-billed Terns and Roseate Terns), hemispherically important migratory staging areas and wintering areas for seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.</p> <p>(2) Zone 2: Nearshore waters that extend from Virginia's ocean-facing shoreline out to 1 km (0.62 mi), excluding the mouth of the</p>	<p>submission for detailed notes concerning the SGCN aspects of this proposal. See also the "changes made" section of this TH03 document.</p> <p>5. Please see the "Alternatives" section of TH02 for detailed comments regarding treatment of coastal avian resources and related issues by the original Wind RAP. Subsequently, these issues were fully addressed and resolved by consensus of the Offshore/Coastal Wind RAP, as follows:</p> <p>The Offshore RAP recommended adopting the CAPZ map, a map that was created chiefly by scientists from DGIF and the Center for Conservation Biology ("CCB") for use in this regulation relating to projects located in nearshore waters and coastal land areas. The CAPZ map reflects the conclusion, based on existing scientific data, that significant adverse impacts to avian resources in many CAPZ are likely if a wind project is built. Use of the CAPZ map - as outlined in this and subsequent sections - allows the applicant either to do his own field studies or to rely on the existing body of scientific analysis for a number of zones. All of the information</p>
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<p>Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory and breeding Piping Plovers, Wilson’s Plovers, Peregrine Falcons and Gill-billed Terns, and migratory Roseate Terns), and hemispherically important migratory corridor, migratory staging areas and wintering areas for shorebirds, seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.</p> <p>(3) Zone 3: Barrier island/seaside lagoon system, including a 100 m (328 ft.) offshore buffer. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding and migratory Piping Plovers, Wilson’s Plovers, Gull-billed Terns, Peregrine Falcons and Bald Eagles, and migratory Roseate Terns), the designation as an Important Bird Area, and hemispherically important migratory staging areas and wintering areas for shorebirds, seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.</p> <p>(4) Zone 4: Southern end of the Delmarva Peninsula (mainland only), including a 10 km (6.21 mi) strip along the western (bayside) fringe of peninsula that extends from Wise Point to (and including) Savage Neck. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory Peregrine Falcons and breeding and migratory Bald Eagles), the designation as an Important Bird Area, and hemispherically important migratory staging areas for passerines and other landbirds. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.</p> <p>(5) Zone 5: Delmarva Peninsula, excluding zones 3 and 4. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles) and regionally to hemispherically important fall migratory staging areas for landbirds. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing</p>	<p>regarding the CAPZ map was recommended by consensus of the Offshore/Coastal RAP.</p>
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<p>scientific analysis as reflected on the CAPZ map.</p> <p>(6) Zone 6: Southern end and mouth of the Chesapeake Bay, including the waters off of the western shore of the Delmarva Peninsula that extend from Wise Point north of the mouth of Craddock Creek. In this zone, the relevant avian species and other avian mitigation factors are: migratory staging areas and wintering areas for seabirds and waterfowl that may be of hemispheric importance. The applicant shall conduct aerial transect surveys for waterfowls and seabirds during the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season.</p> <p>(7) Zone 7: Lower portions of the James, York and Rappahannock Rivers and small tributaries along the south side of the lower Potomac River. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles), regionally important fall migratory staging areas and wintering areas for waterfowl, and spring migratory staging areas of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl during the spring migration season to determine the distribution, density and relative abundance of these species within this zone during the spring season. The applicant shall either perform avian field studies regarding the actual or likely occurrences of breeding Bald Eagles and waterfowl during the fall and winter seasons, or rely on existing scientific analysis as reflected on the CAPZ map.</p> <p>(8) Zone 8: Western portions of the Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: migratory staging areas and wintering areas for seabirds and waterfowl of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl and seabirds in the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season.</p> <p>(9) Zone 9: Virginia's northeast sector of the Chesapeake Bay, including all nearshore waters, marshes and islands within Tangier</p>	
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<p>and Pocomoke Sounds and all islands and marshes located along the western fringe of the Delmarva Peninsula from Craddock Creek north to the Virginia/Maryland border. This zone is recognized as a migratory staging area and wintering area for seabirds and waterfowl of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl and seabirds during the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season. In this zone, additional relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles and Peregrine Falcons) and the designation as an Important Bird Area. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these additional resources, or rely on existing scientific analysis reflected on the CAPZ map.</p> <p>(10) Zone 10: Upper reaches of the James, Rappahannock and Potomac Rivers. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles and continentally important Bald Eagle concentration areas), the designation as Important Bird Areas, and locally to continentally important waterfowl wintering areas. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.</p> <p>(11) Zone 11: Lower reaches of the Mattaponi and Pamunkey tributaries. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles) and the designation as an Important Bird Area. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.</p> <p>(12) Zone 12: Outer fringes of the lower, middle and northern peninsulas. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles). The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.</p>	
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<p>(13) Zone 13: Interior portions of the lower, middle and northern peninsulas. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles, for which little information currently exists in this zone). The applicant shall perform ground surveys for breeding Bald Eagles to determine distribution and abundance of Bald Eagle nests within the disturbance zone and within .25 mile of the perimeter of the disturbance zone.</p> <p>(14) Zone 14: Back Bay and surrounding private lands. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles), the designation as Important Bird Area, and locally to continentally important migratory staging areas and wintering areas for waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the CAPZ map.</p> <p>6. Bat acoustic surveys. The applicant shall conduct bat acoustic surveys to determine the presence of and level of bat activity and use within the disturbance zone.</p> <p>7. Mist-netting or harp-trapping surveys. If the applicant identifies potential for T&E bat species to occur within the disturbance zone, the applicant shall conduct a season-appropriate mist-netting survey or harp-trapping survey or both.</p> <p>8. Wildlife report. The applicant shall provide to the department a report summarizing the relevant findings of the desktop and field surveys conducted pursuant to subdivisions 1 through 7 of this subsection, along with all data and supporting documents. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on wildlife resources identified in subdivisions 1 through 7 of this subsection.</p> <p>B. Analyses of historic resources. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall also conduct a pre-construction historic resources analysis. The analysis</p>	<p>B. All RAP members agreed that the following assessment procedures, performed by a qualified professional, are appropriate tools for identifying potential impacts of a</p>
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<p>shall be conducted by a qualified professional meeting the professional qualification standards of the Secretary of the Interior's Standards for Archeology and Historic Preservation (9VAC15-40-120 B 2) in the appropriate discipline. The analysis shall include each of the following:</p> <ol style="list-style-type: none"> 1. Compilation of known historic resources. The applicant shall gather information on known historic resources within the disturbance zone and within five (5) miles of the disturbance zone boundary and present this information on the context map referenced in 9VAC15-40-70 B, or as an overlay to this context map, as well as in tabular format. 2. Architectural survey. The applicant shall conduct a field survey of all architectural resources, including cultural landscapes, 50 years of age or older within the disturbance zone and within 1.5 miles of the disturbance zone boundary and evaluate the eligibility of any identified resource for listing in the VLR however, for wind energy projects located in nearshore waters, this field study shall include all architectural resources 50 years of age or older within five (5) miles of the disturbance zone boundary, but shall not extend more than 1.5 miles inland from the mean low water mark. 3. Archaeological survey. The applicant shall conduct an archaeological field survey of the disturbance zone and evaluate the eligibility of any identified archaeological site for listing in the VLR however, the requirements of this paragraph shall not apply to any portion of the disturbance zone located on state-owned submerged lands that are subject to VMRC permitting pursuant to Title 28.2 of the Code of Virginia. 4. Historic resources report. The applicant shall provide to the department a report presenting the findings of the studies and analyses conducted pursuant to subdivisions 1 through 3 of this subsection along with all data and supporting documents. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on historic resources identified in subdivisions 1, 2, and 3 of this subsection. 	<p>proposed wind project on historic resources. Although impacts on historic resources tend to be, by their very nature, more qualitative than quantitative, RAP members were comfortable with the well-established protocols utilized by DHR and the U.S. Department of the Interior. DHR's regulations will be incorporated into DEQ's guidance documents to explain how the applicant should carry out the specified analyses.</p> <p>The general approach is for the applicant to perform desktop studies of the project area. If the desktop models indicate the presence of historic resources, then the applicant will proceed to perform field studies. Results of all studies will be reported to DEQ, along with the applicant's analysis of beneficial and adverse impacts of the proposed project on relevant historic resources.</p> <p>B 2. Consensus recommendation of Offshore/Coastal RAP – This provision is designed to reflect DHR's comment that the viewshed impacts to historic resources are expected to be greater for projects located in the water than they are for most projects located on land. The limitation of 1.5 miles inland is provided to maintain consistency of requirements between onshore and nearshore projects.</p> <p>2. (second clause) This provision is designed to reflect the Department of Historic Resources (DHR) comment that the viewshed impacts to historic resources are expected to be greater for projects located in the water than they are for most projects located on land. It was suggested that there are generally very few emergent features in the water, so wind projects will probably be visible from shore for a long, virtually uninterrupted distance. The Offshore RAP accepted DHR's suggestion in this regard; with the proviso that, once the historic-resources analyses for projects in the water extend into onshore areas, the required area to be surveyed and analyzed should be no greater than it is for projects that are located on land near the shoreline. Hence, the limitation of 1.5 miles inland is provided to maintain consistency of requirements between onshore and nearshore.</p>
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<p>C. Analyses of other natural resources. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall also conduct pre-construction analyses of the impact of the proposed project on other natural resources, which have not been addressed pursuant to subsections A or B of this section, and as are specified in subdivisions 1 and 2 of this subsection. The analyses shall include:</p> <p>1. Natural heritage resources. An analysis of the impact of the project on natural heritage resources, which shall include the following:</p> <p>a. A desktop survey of natural heritage resources within the site and within two (2) miles of the boundary of the site.</p> <p>b. Field surveys within the disturbance zone mapping: (i) the ecological community groups as classified in accordance with DCR's The Natural Communities of Virginia, Classification of Ecological Community Groups (9VAC15-40-120 B 4); (ii) natural heritage resources to include species and community identification, location, age, size, spatial distribution, and evidence of reproduction; (iii) caves; (iv) mines; (v) rock outcrops; (vi) cliffs; (vii) wetlands; and (viii) invasive plant species.</p> <p>2. Scenic resources. An analysis of the impact of the project on scenic resources, as follows:</p> <p>a. Pursuant to 9VAC15-40-70, for the area within the site and within 5 miles of the boundary of the site, a viewshed analysis of the impact of the proposed project on existing federally-designated or state-designated scenic resources, including national parks, national forest designated scenic areas, state parks, state natural area preserves, national scenic trails, national or state designated scenic roads, national or state designated scenic rivers and those resources identified as potential candidates for such designation in DCR's Virginia Outdoors Plan (9VAC15-40-120 B 5).</p> <p>b. The applicant shall conduct these analyses and shall show the potential impact of the proposed project on the viewshed from such identified resources, where applicable.</p>	<p>3. There exists certain overlap between DEQ's PBR authority and VMRC's permitting authority in nearshore waters. Both programs are regulatory, not advisory. To avoid requiring an applicant to meet the same or similar requirements for two separate agencies, the heads of DEQ and VMRC - based in part on informal legal advice from the OAG - decided which issues the PBR should address, and which will continue to be addressed by VMRC. It is understood that no project can proceed in nearshore waters without a VMRC permit, and the wildlife and historic resource issues omitted from the PBR will always be addressed by VMRC permits as a matter of law.</p> <p>B 3. Consensus recommendation of Offshore/Coastal RAP – This is an example of the RAP's acknowledgment of and accommodation for the overlap between DEQ's PBR authority and VMRC's permitting authority in nearshore waters.</p> <p>B 4. Consensus Recommendations of Offshore/Coastal RAP.</p> <p>The various wildlife analysis techniques will be defined in DEQ Guidance, in most cases according to consensus-based recommendations of the Wind RAP.</p> <p>C. RAP members agreed that Natural Heritage Resources and Scenic Resources should be analyzed by the applicant, in addition to the wildlife and historic resources addressed above. Both categories are major areas of responsibility for DCR, an agency within the Secretariat of Natural Resources. Whereas neither category is specifically addressed in the 2009 statute (as are "wildlife" and "historic resources"), both categories are "natural resources," and the statute requires that "natural resources" be analyzed.</p> <p>Once again, the general approach is for the applicant to perform desktop studies of the area around the proposed project. If the specified resources are detected, then the applicant will follow up with appropriate field studies. Results of all studies will be reported to DEQ, along with the applicant's analysis of beneficial and adverse impacts of the</p>
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	<p>3. Other natural resources report. The applicant shall provide to the department a report, including maps, documenting the results of the analyses conducted pursuant to subdivision 1 and 2 of this subsection. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on natural resources identified in subdivisions 1 and 2 of this subsection.</p>	<p>proposed project on Natural Heritage Resources and Scenic Resources.</p>
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Section Number	Requirements	Rationale and Consequences
50	<p>Determination of likely significant impacts.</p> <p>A. The department shall find that significant adverse impacts to wildlife are likely whenever the wildlife analyses prescribed in 9VAC15-40-40 A document that either of the following conditions exists:</p> <ol style="list-style-type: none"> 1. Bats have been detected, or a hibernaculum exists, within the disturbance zone. 2. State-listed T&E wildlife are found to occur within the disturbance zone; or the disturbance zone is located on or within one (1) mile of a known or potential sea turtle nesting beach. 3. Within the Coastal Avian Protection Zones, the applicant's field studies indicate that significant adverse impacts to avian resources are likely, or the applicant stipulates that existing scientific analysis, as reflected on the CAPZ map, supports a conclusion that significant adverse impacts to avian resources are likely. 	<p>A. This section sets forth the mandatory triggers for a wildlife mitigation plan. The first trigger – presence of or habitat for bats – was readily approved by all RAP members. The unique negative effect of wind turbines on bats is well documented, and virtually every other state and country requires some kind of mitigation for bat fatalities, usually in the form of operational curtailment.</p> <p>The second mandatory trigger was more controversial among RAP members. All RAP members agreed that the statute does not literally mean to protect all wildlife. The question becomes, for wildlife other than bats, where should the regulatory line be drawn?</p> <p>DGIF, in a cooperative effort with DEQ, narrowed this issue down to the following two choices for the RAP to consider: (1) for DEQ to require a mitigation plan if T&E wildlife are found or (2) for DEQ to require a mitigation plan if T&E wildlife and/or Tier 1 or Tier 2 Species of Greatest Conservation Need (vertebrates only) are found.</p> <p>The SGCN issue was the subject of comment by the public, and DEQ fully considered all of these comments. Largely as a policy matter, the department concluded that the statute's mandates to balance encouraging renewable energy while also protecting natural resources should be interpreted that the PBR should not make it more difficult to construct a renewable-energy project than it is to construct other types of projects, unless there is a good reason. For bats and historic viewsheds, the case could be made that large wind turbines have a unique and special impact. The case was not made that wind turbines have a unique or special impact on other SGCN species (other than bats and birds) that any other type of development would not also have; and these other types of development do not require regulatory protection for wildlife or historic resources. A full explanation of how and why DEQ determined to use only T&E species as the second mandatory trigger for wildlife mitigation appears in the "Alternatives"</p>

	<p>B. The department shall find that significant adverse impacts to historic resources are likely whenever the historic resources analyses prescribed by 9VAC15-40-40 B indicate that the proposed project is likely to diminish significantly any aspect of a historic resource's integrity.</p>	<p>section of TH02 and in the "changes made" section of this TH03 submission.</p> <p>B. The integrity of a historic resource is defined in DHR's regulations. This information will be provided and explained in DEQ's Guidance, much of which has already been drafted by DHR and the RAP.</p> <p>Although the standard for triggering a historic resources mitigation plan is largely qualitative, the RAP was comfortable that it is understood by DHR and qualified professionals who will be dealing with the standard on behalf of the applicant.</p>
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Section Number	Requirements	Rationale and Consequences
60	<p>Mitigation plan.</p> <p>A. If the department determines that significant adverse impacts to wildlife or historic resources or both are likely, then the applicant shall prepare a mitigation plan. The mitigation plan shall include a description of the affected wildlife or historic resources or both and the impact to be mitigated, a description of actions that will be taken to avoid the stated impact, and a plan for implementation. If the impact cannot reasonably be avoided, the plan shall include a description of actions that will be taken to minimize the stated impact, and a plan for implementation. If neither avoidance nor minimization is reasonably practicable, the plan shall include a description of other measures that may be taken to offset the stated impact, and a plan for implementation.</p> <p>B. Mitigation measures for significant adverse impacts to wildlife shall include:</p> <ol style="list-style-type: none"> 1. For state listed T&E wildlife, the applicant shall take all reasonable measures to avoid significant adverse impacts, or shall demonstrate in the mitigation plan what significant adverse impacts cannot practicably be avoided, and why additional proposed actions are reasonable. These additional proposed actions may include best practices to avoid, minimize, or offset adverse impacts to resources analyzed pursuant to 9VAC15-40-40 A or 9VAC15-40-40 C 1. 2. For proposed projects where the disturbance zone is located on or within one (1) mile of a known or potential sea turtle nesting beach, the applicant shall take all reasonable measures to avoid 	<p>Although the 2009 statute requires an applicant to analyze “natural resources,” the only resources for which the statute requires a mitigation plan are “wildlife” and “historic resources,” and only if DEQ determines that “significant adverse impacts to wildlife or historic resources are likely.” This section sets forth the criteria DEQ must use in making these determinations. These criteria operate as mandatory triggers for development of a wildlife mitigation plan or historic resources mitigation plan.</p> <p>A permit by rule is supposed to set forth across-the-board requirements “up front” for all applicants to follow. To the extent practicable, the RAP and DEQ followed this model in developing the proposed regulation. The analyses and mitigation triggers are “one size fits all.” When it comes to mitigation, however, the RAP agreed that some degree of individualization will need to occur if the mitigation plan is to have meaningful impacts for the project in question. Consequently, the mitigation provisions set forth standard procedures for mitigation but leave room for case-specific determinations where needed.</p> <p>A. The regulation restates the traditional hierarchy for mitigation – avoid, minimize, offset.</p> <p>B.1. The regulation also reflects one of the alternatives presented to the RAP after the meeting between DGIF and DEQ. That is, the applicant may voluntarily opt to propose best practices to mitigate for other wildlife-related resources when he cannot fully avoid impacts to T&E species. These proposals may include Tier 1 & 2 SGCN, or any other resource analyzed under the wildlife and Natural Heritage Resources provisions.</p> <p>B.2. The Offshore/Coastal RAP agreed with the recommendation from DGIF and others concerning</p>

<p>significant adverse impacts, or shall demonstrate in the mitigation plan what significant adverse impacts cannot practicably be avoided, and why additional proposed mitigation actions are reasonable. Mitigation measures shall include the following:</p> <p>a. Avoiding construction within likely sea turtle crawl or nesting habitats during the turtle nesting and hatching season (May 20 - October 31). If avoiding construction during this period is not possible, then conducting daily crawl surveys of the disturbance zone (May 20 - August 31) and one (1) mile beyond the northern and southern reaches of the disturbance zone (hereinafter "sea turtle nest survey zone") between sunrise and 9:00 a.m. by qualified individuals who have the ability to distinguish accurately between nesting and non-nesting emergences.</p> <p>b. If construction is scheduled during the nesting season, then including measures to protect nests and hatchlings found within the sea turtle nest survey zone.</p> <p>c. Minimizing nighttime construction during the nesting season, and designing project lighting during the construction and operational phases to minimize impacts on nesting sea turtles and hatchlings.</p> <p>3. For avian resources within any of the Coastal Avian Protection Zones that are referenced in 9VAC15-40-40 A 5, the applicant shall take all reasonable measures to avoid significant adverse impacts, or shall demonstrate in the mitigation plan what significant adverse impacts cannot be practicably be avoided, and why additional proposed mitigation actions are reasonable.</p> <p>4. For bats, the mitigation plan shall include measures to curtail operation of wind turbines on low wind speed nights when bats are likely to be active within the disturbance zone, and to monitor the efficacy of these measures; however, the combined cost of mitigation and post-construction monitoring, in each year after year one (1), shall not exceed 120 hours of curtailment per year per turbine, averaged. The combined cost of mitigation shall consist of lost revenue from curtailment of wind turbines, including lost production tax credits.</p>	<p>appropriate mitigation for likely significant adverse impacts to sea turtle nesting. The RAP believes that these mitigation measures are well enough established and accepted that they should appear in the regulation, where they become enforceable standards.</p> <p>B.3. So far, studies have not proven that operational measures (curtailment, etc.) can significantly reduce avian impacts; the proper means of mitigating for avian impacts is uncertain. Accordingly, the Offshore/Coastal RAP recommended that specific options for avian mitigation in CAPZ be placed in DEQ Guidance. These options were suggested in "straw man" provisions by DGIF, accepted by the Offshore RAP by consensus, and slated for inclusion in Guidance by the department.</p> <p>B.4. As with many other provisions, the RAP subcommittee spelled out how this provision should be implemented, and their explanation will become part of DEQ's Guidance document. Details like cut-in speeds and seasons when mitigation would be appropriate will be included.</p> <p>The cap on the applicant's costs of wildlife mitigation and post-</p>
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<p>5. Post-construction monitoring shall be designed to achieve the following:</p> <ul style="list-style-type: none"> a. Estimate the level of avian and bat fatalities associated with the wind energy project, accounting for scavenger removal and searcher efficiency; however, estimates of avian and bat fatalities shall not be required for areas seaward of the mean low-water shoreline. b. Investigate the correlation of bat fatalities with project operational protocols, weather-related variables, and the effectiveness of operational adjustments to reduce impacts. <p>6. Post-construction wildlife mitigation and management shall include the following:</p> <ul style="list-style-type: none"> a. Post-construction mitigation. After completing the initial one (1) year of post-construction monitoring, the owner or operator shall submit the first year's monitoring data and a revised mitigation plan detailing the monitoring and mitigation actions expected to be implemented for the remainder of the project's operating life. Such mitigation actions shall be designed to address the impacts revealed by the initial year of post-construction monitoring. One (1) year after the revised mitigation plan is submitted, and annually thereafter, the owner or operator shall submit a report consisting of the results of ongoing monitoring, including data and supporting documents, an explanation of how the mitigation measures reflect results indicated by the monitoring data, and documentation showing expenditures and lost revenues attributable to curtailment, other mitigation actions, and monitoring. b. Amendment of wildlife mitigation plan. After three (3) years of post-construction mitigation efforts, the owner or operator of the project may initiate a consultation with the department to propose amendments to the mitigation plan. The owner or operator shall submit any proposed amendments of the mitigation plan to the department. The department may approve the proposed amendments if the department determines that the proposed 	<p>construction monitoring was agreed on by all RAP members. It was apparent that there should be some defined point at which the applicant has performed enough mitigation. Although the RAP considered a number of alternatives, it ultimately agreed that the financial cap was the best choice. The RAP left it to DEQ to determine the best way to word this provision so that the public would understand that the financial cap is a proxy for a reasonable standard of mitigation. The financial cap provision is explained more fully in the "Alternatives" section of TH02, as well as in other sections of this TH03 submission.</p> <p>The provisions reflect that the applicant will do extensive monitoring during the first year of operation, in order to determine which patterns of curtailment are most effective for minimizing bat fatalities. The financial cap does not begin until the second year of operation. The proposal contemplates that, within three years of mitigation and monitoring, the operator will have established an effective curtailment strategy, or will have ascertained that curtailment (or curtailment alone) is not the most effective mitigation strategy. If he needs to amend his original mitigation plan in view of this experience, the proposal allows him to submit an amendment for DEQ's consideration. This approach is designed to foster "adaptive management," a strategy touted by many in the wind-energy arena, in which the operator adapts his mitigation strategy according to what measures are shown by post-construction monitoring to work most effectively.</p> <ul style="list-style-type: none"> a. (second clause) This provision reflects the fact, as explained by scientists on the Offshore/Coastal RAP, that effective means for evaluating bird and bat fatalities over water do not exist and/or are not commercially available at the present time. Measures like carcass searches cannot effectively be performed in the water. The regulation can be amended if and as these tools become available.
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<p>amendments will avoid or minimize adverse impacts to a demonstrably equal or greater extent as the mitigation measures being implemented at that time. Alternatively, the department may approve the proposed amendments to the mitigation plan if the owner or operator demonstrates that the mitigation measures being implemented at that time are not effectively avoiding or minimizing adverse impacts, in which case the owner or operator may propose and the department may approve ways of offsetting ongoing adverse impacts, such as funding research or preserving habitats.</p> <p>C. Mitigation measures for significant adverse impacts to historic resources shall include:</p> <ol style="list-style-type: none">1. Significant adverse impacts to VLR-eligible or VLR-listed architectural resources shall be minimized, to the extent practicable, through design of the wind energy project or the installation of vegetative or other screening.2. If significant adverse impacts to VLR-eligible or VLR-listed architectural resources cannot be avoided or minimized such that impacts are no longer significantly adverse, then the applicant shall develop a reasonable and proportionate mitigation plan that offsets the significantly adverse impacts and has a demonstrable public benefit and benefit for the affected or similar resource.3. If any identified VLR-eligible or VLR-listed archaeological site cannot be avoided or minimized to such a degree as to avoid a significant adverse impact, significant adverse impacts of the project will be mitigated through archaeological data recovery.	<p>C. Ongoing impacts of wind energy projects on historic resources are typically viewshed impacts. The applicant can sometimes move the location of turbines within the site to minimize these impacts, or he can construct or plant screening materials so that the turbines cannot be as fully viewed from the historic resource. If he cannot practicably screen the turbines from view so that the impact is no longer a significant diminishment of the historic resource's integrity, then the applicant must develop an offset. An offset might be protecting the view shed of another historic resource, placing a conservation easement on a historic resource, etc.</p>
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Section Number	Requirements	Rationale and Consequences
70	<p>Site plan and context map requirements.</p> <p>A. The applicant shall submit a site plan that includes maps showing the physical features, topography, and land cover of the area within the site, both before and after construction of the proposed project. The site plan shall be submitted at a scale sufficient to show, and shall include, the following: (i) the boundaries of the site; (ii) the location, height, and dimensions of all existing and proposed wind turbines, other structures, fencing and other infrastructure; (iii) the location, grades, and dimensions of all temporary and permanent on-site and access roads from the nearest county or state maintained road; and (iv) water bodies, waterways, wetlands, and drainage channels. For any part of a site that is located in nearshore waters, the site plan shall also include bathymetry; the location and depth of underground cables, transmission lines and pipelines; navigational channels; and beaches, marshes and other emergent terrestrial features.</p> <p>B. The applicant shall submit a context map including the area encompassed by the site and within five (5) miles of the site boundary. The context map shall show state and federal resource lands and other protected areas, Coastal Avian Protection Zones, historic resources, state roads, waterways, locality boundaries, forests, open spaces, and transmission and substation infrastructure. If any part of a site is located in nearshore waters, the context map shall also include bathymetry; navigational channels; commercially licensed fixed fishing devices; permitted aquaculture operations; shellfish leases; public shellfish grounds; artificial reefs; and submerged aquatic vegetation.</p>	<p>A. The site plan should provide to DEQ and the public a clear idea of the chief features of the project site, including the size and placement of turbines.</p> <p>B. This provision requires submittal of a context map of the area extending 5 miles around the boundary of the site. Discreet natural resources often occur within a larger context, such as a watershed. The RAP wanted to ensure that DEQ and the public are aware of the larger context in which the proposed project will exist, and its possible effect within that “big picture.”</p> <p>Of special note is the inclusion of “forests” and “open spaces” as required aspects of the context map. The potential impact of the project on forested wildlife habitat is addressed in the analyses section of the proposed regulation. The Department of Forestry representative pointed out that the issue of forest fragmentation is a slightly different forest-related concern. Possible forest fragmentation will be reflected on the context map, and can be taken into account by the public and local government, among others. The same is true for converted farmland, a concern of the representative from VDACS. If the project entails development of former farm acreage, the map showing open spaces will make that fact clear.</p>

Section Number	Requirements	Rationale and Consequences
80	<p>Small wind energy project design standards.</p> <p>The design and installation of the small wind energy project shall incorporate any requirements of the mitigation plan that pertain to design and installation, if a mitigation plan is required pursuant to 9VAC15-40-50.</p>	<p>This provision clarifies that DEQ is interested only in the aspects of the project design that relate to mitigation. It should be clear to the public that DEQ is not guaranteeing the quality of the work or the credentials of the person doing the design. Nor will DEQ be involved in ensuring compliance of the design with any requirements other than mitigation. If, however, the applicant's mitigation plan involves such things as locating a turbine so as to avoid view shed impacts on a nearby historic resource, or to avoid a bat hibernaculum, DEQ will expect to see those adjustments reflected in the project design and will enforce them accordingly.</p>

Section Number	Requirements	Rationale and Consequences
90	<p>Public participation.</p> <p>A. Before the initiation of any construction at the small wind energy project, the applicant shall comply with this section. The owner or operator shall first publish a notice once a week for two consecutive weeks in a major local newspaper of general circulation informing the public that he intends to construct and operate a project eligible for a permit by rule. No later than the date of newspaper publication of the initial notice, the owner or operator shall submit to the department a copy of this notice along with electronic copies of all documents that the applicant plans to submit in support of the application. The notice shall include:</p> <ol style="list-style-type: none"> 1. A brief description of the proposed project and its location, including the approximate dimensions of the site, approximate number of turbines, and approximate maximum blade-tip height; 2. A statement that the purpose of the public participation is to acquaint the public with the technical aspects of the proposed project and how the standards and the requirements of this chapter will be met, to identify issues of concern, to facilitate communication and to establish a dialogue between the owner or operator and persons who may be affected by the project; 3. Announcement of a 30-day comment period in accordance with subsection C of this section, and the name, telephone number, address, and email address of the applicant who can be contacted by the interested persons to answer questions or to whom comments shall be sent; 4. Announcement of the date, time, and place for a public meeting held in accordance with subsection D of this section; and 	<p>This section sets forth the requirements the applicant must complete for compliance with the statutorily-mandated public participation on any project. The requirements are minimum requirements and are similar to those utilized for other DEQ permits by rule.</p> <p>DEQ decided to require the applicant to submit electronic copies of the documents that will be placed in a location near the proposed project -- documents that are required in support of the permit by rule application. This requirement should not be burdensome for the applicant, since all of these documents are likely to have been generated as electronic documents. It is increasingly the case that newspapers do not reach large segments of the public. DEQ will seek ways to make notice and application information available electronically for the benefit of the public.</p> <ol style="list-style-type: none"> 1. This brief description will allow the public and interested persons who track all such developments the ability to discern, at a glance, whether it needs to be concerned about the proposed wind energy project. This provision was specifically favored by representatives from the military.

<p>5. Location where copies of the documentation to be submitted to the Department in support of the permit by rule application will be available for inspection.</p> <p>B. The owner or operator shall place a copy of the documentation in a location accessible to the public during business hours for the duration of the 30-day comment period, in the vicinity of the proposed project.</p> <p>C. The public shall be provided at least 30 days to comment on the technical and the regulatory aspects of the proposal. The comment period shall begin no sooner than 15 days after the applicant initially publishes the notice in the local newspaper.</p> <p>D. The applicant shall hold a public meeting not earlier than 15 days after the beginning of the 30-day public comment period and no later than seven days before the close of the 30-day comment period. The meeting shall be held in the locality or, if the project is located in more than one locality, in a place proximate to the location of the proposed project; however, for projects located in nearshore waters or on state owned submerged lands, the meeting shall be held in the locality that is the closest distance from the approximate center of the project's disturbance zone.</p> <p>E. For purposes of this chapter, the applicant and any interested party who submits written comments on the proposal to the applicant during the public comment period, or who signs in and provides oral comments at the public meeting, shall be deemed to have participated in the proceeding for a permit by rule under this chapter and pursuant to Section 10.1-1197.7 B of the Code of Virginia.</p>	<p>E. The RAP recognized that, for legal purposes, it is important to define clearly who has participated in the public comment period and therefore has the right to appeal DEQ's case decision under the Administrative Process Act. This provision seeks to do that. Persons, for instance, who merely chat with the owner's representative out in the hall at the public meeting, have not met the requirement.</p>
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Section Number	Requirements	Rationale and Consequences
100	<p>Change of ownership, project modifications, termination.</p> <p>A. Change of ownership. A permit by rule may be transferred to a new owner or operator if:</p> <ol style="list-style-type: none"> 1. The current owner or operator notifies the department at least 30 days in advance of the transfer date by submittal of a notice per subdivision 2 of this subsection; 2. The notice shall include a written agreement between the existing and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability between them; and 3. The transfer of the permit by rule to the new owner or operator shall be effective on the date specified in the agreement mentioned in subdivision 2 of this subsection. <p>B. Project modifications. Provided project modifications are in accordance with the requirements of this permit by rule and do not increase the rated capacity of the small wind energy project, the owner or operator of a project authorized under a permit by rule may modify its design or operation or both by furnishing to the department new certificates prepared by a professional engineer, new documentation required under 9VAC15-40-30, and the appropriate fee in accordance with 9VAC15-40-110. The department shall review the received modification submittal in accordance with the provisions of subsection B of 9VAC15-40-30.</p> <p>C. Permit by rule termination. The department may terminate the permit by rule whenever the department finds that:</p> <ol style="list-style-type: none"> 1. The applicant has knowingly or willfully misrepresented or failed to disclose a material fact in any report or certification required under this chapter; or 2. After the department has taken enforcement actions pursuant to 9VAC15-40-120, the owner or operator persistently operates the 	<p>This section establishes requirements for permit by rule revisions such as change of ownership, modifications and permit terminations. The provisions of subsection C.3 are required by the Administrative Process Act when DEQ terminates a permit.</p>

	<p>project in significant violation of the project's mitigation plan.</p> <p>3. Prior to terminating a permit by rule pursuant to subdivision 1 or 2 of this subsection, the department shall hold an informal fact-finding proceeding pursuant to § 2.2-4019 of the Virginia Administrative Process Act in order to assess whether to continue with termination of the permit by rule or to issue any other appropriate order. If the department determines that it should continue with the termination of the permit by rule, the department shall hold a formal hearing pursuant to § 2.2-4020 of the Virginia Administrative Process Act. Notice of the formal hearing shall be delivered to the owner or operator. Any owner or operator whose permit by rule is terminated by the department shall cease operating his small wind energy project.</p>	
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Section Number	Requirements	Rationale and Consequences						
110	<p>Fees.</p> <p>A. Purpose. The purpose of this section is to establish schedules and procedures pertaining to the payment and collection of fees from any applicant seeking a new permit by rule or a modification to an existing permit by rule for a small wind energy project.</p> <p>B. Fee payment and deposit. Fees for permit by rule applications or modifications shall be paid by the applicant as follows:</p> <ol style="list-style-type: none"> 1. Due date. All permit application fees or modification fees are due on submittal day of the application or modification package. 2. Method of payment. Fees shall be paid by check, draft or postal money order made payable to "Treasurer of Virginia/DEQ," and shall be sent to the Department of Environmental Quality, Receipts Control, P.O. Box 10150, Richmond, VA 23240. 3. Incomplete payments. All incomplete payments shall be deemed nonpayments. 4. Late payment. No application or modification submittal will be deemed complete until the department receives proper payment. <p>C. Fee schedules. Each application for a permit by rule and each application for a modification of a permit by rule is a separate action and shall be assessed a separate fee. The amount of the permit application fee is based on the costs associated with the permitting program required by this chapter. The fee schedules are shown in the following table:</p> <table border="0" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: left;">Type of Action</th> <th style="text-align: left;">Fee</th> </tr> </thead> <tbody> <tr> <td>Permit by rule application (including first 3 years of operation)</td> <td>\$16,000</td> </tr> <tr> <td>Permit by rule modification (after first three years of operation)</td> <td>\$5,000</td> </tr> </tbody> </table> <p>D. Use of fees. Fees are assessed for the purpose of defraying the department's costs of administering and enforcing the provisions of</p>	Type of Action	Fee	Permit by rule application (including first 3 years of operation)	\$16,000	Permit by rule modification (after first three years of operation)	\$5,000	<p>The RAP asked DEQ to develop appropriate fee schedules in compliance with the 2009 statute and in keeping with the anticipated actual costs the agency will incur in administering the permit program. The provisions are DEQ's best calculation of what the fees need to be. The procedures for payment are those used in other DEQ regulations.</p> <p>Included in the initial fee are DEQ's anticipated costs for processing the permit application and for working with the owner/operator during the first three years of post-construction operation and monitoring, when the most effective curtailment strategies for bat-fatality avoidance are being developed. The owner/operator may propose amendments to the wildlife mitigation plan based on these initial three years of operation and monitoring without incurring an additional fee. Changes after the first three years will be handled as a permit modification, and a fee charged accordingly.</p>
Type of Action	Fee							
Permit by rule application (including first 3 years of operation)	\$16,000							
Permit by rule modification (after first three years of operation)	\$5,000							

	<p>this chapter including, but not limited to, permit by rule processing, permit by rule modification processing, and inspection and monitoring of small wind energy projects to ensure compliance with this chapter. Fees collected pursuant to this section shall be used for the administrative and enforcement purposes specified and as specified in § 10.1-1197.6 E of the Code of Virginia.</p> <p>E. Fund. The fees, received by the department in accordance with this chapter, shall be deposited in the Small Renewable Energy Project Fee Fund.</p> <p>F. Periodic review of fees. Beginning July 1, 2012, and periodically thereafter, the department shall review the schedule of fees established pursuant to this section to ensure that the total fees collected are sufficient to cover 100 percent of the department's direct costs associated with use of the fees.</p>	
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Section Number	Requirements	Rationale and Consequences
120	<p>Internet accessible resources.</p> <p>A. This chapter refers to resources to be used by applicants in gathering information to be submitted to the department. These resources are available through the internet; therefore, in order to assist the applicants, the uniform resource locator or internet address is provided for each the references listed in this section.</p> <p>B. Internet available resources.</p> <ol style="list-style-type: none"> 1. The Virginia Landmarks Register, Virginia Department of Historic Resources, 2801 Kensington Avenue, Richmond, Virginia. Available at the following internet address: http://www.dhr.virginia.gov/registers/register.htm. 2. Professional Qualifications Standards, the Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation, as amended and annotated (48 FR 44716-740, September 29, 1983), National Parks Service, Washington, DC. Available at the following internet address: http://www.nps.gov/history/local-law/arch_stnds_9.htm. 3. Invasive alien plant species of Virginia, Virginia Department of Conservation and Recreation, Division of Natural Heritage, Richmond, Virginia. Available at the following internet address: http://www.dcr.virginia.gov/natural_heritage/invspinfo.shtml . 4. The Natural Communities of Virginia, Classification of Ecological Community Groups, Second Approximation, Version 2.3, Virginia Department of Conservation and Recreation, Division of Natural Heritage, Richmond, VA. Available at the following internet address: http://www.dcr.virginia.gov/natural_heritage/ncintro.shtml. 5. Virginia Outdoors Plan, 2007, Virginia Department of Conservation and Recreation, Richmond, Virginia. Available at the following internet address: http://www.dcr.virginia.gov/recreational_planning/vop.shtml. 6. Virginia’s Comprehensive Wildlife Conservation Strategy, 2005 	<p>Provided to assist applicants, since the resources are available through the internet. DEQ’s sister agencies, who establish and maintain most of these internet resources, tell the department that they are refining their databases so that required PBR information is readily available. DEQ’s CZM program staff is working with the Center for Conservation Biology and DGIF to ensure that the CAPZ map and narrative materials are appropriately posted on Coastal GEMS.</p>

<p>(referred to as the Virginia Wildlife Action Plan), Virginia Department of Game and Inland Fisheries, 4010 West Broad Street, Richmond, Virginia. Available at the following internet address: http://www.bewildvirginia.org/wildlifeplan/.</p> <p>C. Internet applications.</p> <p>1. Coastal GEMS application, 2010, Virginia Department of Environmental Quality. Available at the following internet address: http://www.deq.virginia.gov/coastal/coastalgems.html.</p> <p>NOTE: This website is maintained by the department Assistance and information may be obtained by contacting Virginia Coastal Zone Management Program, Virginia Department of Environmental Quality, 629 E. Main Street, Richmond, Virginia 23219, (804) 698-4000.</p> <p>2. Natural Landscape Assessment, 2010, Virginia Department of Conservation and Recreation. Available at the following internet address: for detailed information on ecological cores go to http://www.dcr.virginia.gov/natural_heritage/vclnavnla.shtml maps may be viewed at DCR's Land Conservation Data Explorer Geographic Information System website at http://www.vaconservedlands.org/gis.aspx.</p> <p>NOTE: The website is maintained by DCR. Actual shapefiles and metadata are available for free by contacting a DCR staff person at vaconslands@dcr.virginia.gov or DCR, Division of Natural Heritage, 217 Governor Street, Richmond, Virginia 23219, (804)786-7951.</p> <p>3. Virginia Fish and Wildlife Information Service 2010, Virginia Department of Game and Inland Fisheries. Available at the following internet address: http://www.vafwis.org/fwis/.</p> <p>NOTE: This website is maintained by DGIF and is accessible to the public as "visitors", or to registered subscribers. Registration, however, is required for access to resource- or species-specific locational data and records. Assistance and information may be obtained by contacting DGIF, Fish and Wildlife Information Service, 4010 West Broad Street, Richmond, Virginia 23230, (804)367-6913.</p>	
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Section Number	Requirements	Rationale and Consequences
130	<p>Part III</p> <p>Notification and Other Provisions for Projects of Five (5) Megawatts or Less</p> <p>Small wind energy projects of 5 megawatts or less.</p> <p>A. The owner or operator of a small wind energy project with a rated capacity equal to or less than 500 kilowatts is not required to submit any notification or certification to the department.</p> <p>B. The owner or operator of a small wind energy project with a rated capacity greater than 500 kilowatts and equal to or less than 5 megawatts shall:</p> <ol style="list-style-type: none"> 1. Notify the department by submitting a certification by the governing body of the locality or localities wherein the project will be located that the project complies with all applicable land use ordinances and applicable local government requirements and, 2. For projects located in part or in whole within zones 1, 2, 3, 4, 5, 10, 11, 12, and 14 on the Coastal Avian Protection Zones map, contribute \$1,000.00 per megawatt of rated capacity, or partial megawatt thereof, to a fund designated by the department in support of scientific research investigating the impacts in Coastal Avian Protection Zones on avian resources. 	<p>This section details the notification and other provisions for community-scale and residential-scale projects.</p> <p>2. Except for one negative vote, the Offshore/Coastal Wind RAP recommended this provision for very small projects located within the CAPZ. Areas within the CAPZ are considered by experts to contain such vital avian resources that the RAP believed the impact of even very small projects should be taken into account. Since few if any studies exist about the impacts of very small projects in these critical coastal areas, the provision is designed to encourage this research. It is hoped that future regulations will have a more definite scientific basis for determining appropriate protections for avian resources in CAPZ areas.</p>

Section Number	Requirements	Rationale and Consequences
140	<p>Part IV Enforcement Enforcement.</p> <p>The department may enforce the provisions of this chapter and any permits by rule authorized under this chapter in accordance with §§ 10.1-1197.9, 10.1-1197.10, and 10.1-1197.11 of the Code of Virginia. In so doing, the department may:</p> <ol style="list-style-type: none"> 1. Issue directives in accordance with the law; 2. Issue special orders in accordance with the law; 3. Issue emergency special orders in accordance with the law; 4. Seek injunction, mandamus or other appropriate remedy as authorized by the law; 5. Seek civil penalties under the law; or 6. Seek remedies under the law, or under other laws including the common law. 	<p>DEQ will enforce the provisions of these regulations and the wind permit by rule the same way it enforces other regulatory provisions and permits. The 2009 statute includes an extensive section on enforcement, which is incorporated by reference into the proposed regulation. The statutory provision encompasses DEQ’s relevant enforcement tools and procedures. These statutory provisions are further fleshed out in this section, with language the public is accustomed to seeing in other DEQ regulations.</p>
DIBR	<p>DOCUMENTS INCORPORATED BY REFERENCE (9VAC15-40)</p> <p>The Natural Communities of Virginia, Classification of Ecological Community Groups, Second Approximation, 2006, Virginia Department of Conservation and Recreation, Division of Natural Heritage, Richmond, VA.</p> <p>Virginia Outdoors Plan, 2007, Virginia Department of Conservation and Recreation, Richmond, Virginia.</p> <p>Virginia’s Comprehensive Wildlife Conservation Strategy, 2005, Virginia Department of Game and Inland Fisheries, Richmond, Virginia.</p>	

Enter any other statement here

Regulatory flexibility analysis

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

The permit by rule, in and of itself, is a regulatory method that is considered a less burdensome, faster approach for small businesses and indeed for all applicants.

Small businesses, and all other applicants, whose projects are 5 megawatts down to 500 kW will have only notification and minimal requirements to meet. Applicants with a project of 500 kW or less will have no PBR requirements.

Since there is no accurate way to predict what type or size of entity will apply for this permit by rule, it is difficult to analyze impacts on small businesses per se.

The RAP and DEQ have worked very hard to see that all requirements in the permit by rule are necessary and reasonable, within the mandates of the enabling legislation.

Family impact

Please assess the impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

The Department does not expect that the regulation will have a direct impact on the institution of the family and family stability.